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THE

MEDICAL FORMULARY:

BEING

A COLLECTION OF PRESCRIPTIONS,

DERIVED FROM THE

WRITINGS AND PRACTICE OF MANY OF THE MOST EMINENT PHYSICIANS IN AMERICA AND EUROPE.

TOGETHER WITH THE

USUAL DIETETIC PREPARATIONS AND ANTIDOTES FOR POISONS.

TO WHICH IS ADDED

AN APPENDIX,

ON THE

ENDERMIC USE OF MEDICINES, AND ON THE USE OF ETHER AND CHLOROFORM.

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Oct. 27
1853

THE WHOLE ACCOMPANIED WITH A FEW BRIEF

PHARMACEUTICAL AND MEDICAL OBSERVATIONS.

BY BENJAMIN ELLIS, M.D.,

LATE PROFESSOR OF MATERIA MEDICA AND PHARMACY IN THE PHILADELPHIA COLLEGE OF PHARMACY.

TENTH EDITION,

REVISED AND MUCH EXTENDED.

BY ROBERT P. THOMAS, M.D.,

PROFESSOR OF MATERIA MEDICA IN THE PHILADELPHIA COLLEGE OF PHARMACY.

"Morbos autem, non eloquentiâ sed remediis curari."—CELS. DE MED. LIB. I.

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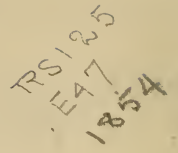

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TO

N. CHAPMAN, M. D.,

PROFESSOR OF THE INSTITUTES AND PRACTICE OF MEDICINE AND CLINICAL PRACTICE IN THE

University of Pennsylvania,

ETC. ETC.

WHOSE TALENTS AND URBANITY HAVE RAISED HIM TO THE FIRST RANK IN THE PROFESSION, AND HAVE ACQUIRED FOR HIM THE CONFIDENCE AND ESTEEM OF A LARGE AND ENLIGHTENED COMMUNITY,

THIS WORK

IS VERY RESPECTFULLY DEDICATED

BY HIS OBLIGED FRIEND,

THE AUTHOR.

EDITOR'S PREFACE.

THE lamented decease of Dr. Samuel George Morton, since the appearance of the last edition, has rendered it necessary to place this work in other hands. During the lifetime of its author, Dr. Morton afforded a friendly revision of the first two editions, and after his death assumed the editorial charge of the seven succeeding editions. Being intimately acquainted with the author's views, he faithfully carried them out, by adding, from time to time, standard formulæ from the best writers.

Influenced by similar feelings, the present Editor has made a careful selection of a large number of prescriptions from the leading American and foreign authorities; in most instances, giving a preference to those which serve to introduce the new remedies announced in the last few years. Some of the old formulæ have been omitted, and others less complicated have been substituted. To all of the additions, the word "EDITOR" or the names of their authors have been scrupulously placed.

The arrangement of the original work, founded on that adopted by Dr. Chapman in his Therapeutics, has been retained for internal remedies, which constitute the subject-matter of BOOK I. But for convenience of refer-

ence, it has been thought advisable to bring together under a common head those intended for external use. Accordingly, Book II. has been devoted to external applications. This course appeared the more indispensable from the fact that the true therapeutic value of a large number of the articles used in the skin diseases has not yet been tested by time and experience.

The table of the doses of medicines has been entirely rewritten, and the present Editor is alone responsible for any errors therein contained.

The various changes in nomenclature that have occurred during twenty years, have caused much discrepancy in prescribing, and much difficulty in compounding. To obviate these, all the formulæ embracing officinal articles have been brought to the standard of our National Pharmacopœia, for the double purpose of extending a practical knowledge of its terminology among prescribers, and of facilitating as well as simplifying the duties of the apothecary.

ROBERT P. THOMAS.

Philadelphia, October, 1853.

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PREFACE.

The elegant and judicious formation of prescriptions is one of the difficulties which the young practitioner in medicine is obliged to encounter. While a student, he is compelled, from the circumstances under which he is placed, to confine his attention to the leading principles of the science. Consequently, the minor points (and the art of directing medicines is considered one of them) are postponed to that period when he shall have undertaken the practical duties of his profession.

To obviate, in some measure, the inconvenience which the graduate at first experiences, the volume now offered the public was undertaken and executed. It contains, in a condensed form, and we think advantageously arranged, many of the most important prescriptions employed in modern practice, and which, though most of them may be already recorded, are scattered through various medical works.

The arrangement framed by Professor Chapman for his Therapeutics, appearing to combine greater advantages than any other, we have taken the liberty of adopting it as the basis of this Formulary.

Each Class has been subdivided into Powders, Pills, and Liquids; without any attempt to preserve the different preparations of the same article together, but only with a view to convenience. A few concise rules will be found prefixed to each Class, and observations have been attached to those prescriptions which possess peculiarities either in their composition or effects.

The application of the remedies to diseases has been generally left to the judgment of the practitioner, and therapeutical detail as much as possible avoided, as it would have been inconsistent with the nature and design of the work.

The object is to furnish models for extemporaneous formulæ, the proportions of which may be either increased or diminished, according to the age, sex, constitution or idiosyncrasy of the patient, all of which are to be taken into consideration when a prescription is directed, as well as the climate and peculiar epidemic which may be prevailing.

The prescriptions have been couched in the Latin language, and the names of the several articles will be found regularly terminated. The design was to furnish something like a Medical Grammar, to those unacquainted with the dead language; and even those versed in the classics, may occasionally find words used in prescriptions which are new to them.

A series of Dietetic preparations and the principal poisons have been placed in Book III. The former are written in the English language, and it is hoped that they may be found useful in furnishing directions necessary to be given to the nurse.

The latter are those Poisons which are usually taken by accident or design, with their appropriate antidotes and some practical observations.

Appendix No. I. contains some concise remarks on the mode of using remedies on the "*Endermic plan*," as well as the quantities employed, and the effects produced by several of the most potent remedial agents.[1]

The materials for the work have been collected from various sources, the writings of different authors, periodical journals, manuscripts, and the contributions of our friends. It is hoped, therefore, that the difficulties which have attended its progress will form some apology for the errors which it may possibly be found to contain. As a reason for not more frequently attaching the names of authors to the prescriptions, it may be observed that they are a kind of common medical property, which every physician feels himself privileged not only to employ, but modify as may best correspond with his own views. It is, therefore, difficult to say to whom many of them belong; they have been touched, and retouched, till they have lost their identity.

In conclusion, we beg leave to present our acknowledgments to some of our friends for the encouragement they have given to the undertaking. To Dr. Chapman we are particularly indebted for the kindness and interest he has manifested in its publication, and offer to him (the only return we can make), our warmest thanks.

[1] Appendix No. II. is a concise and able article on the use of Ether and Chloroform, drawn up by the late Dr. Morton, to which the attention of the reader is directed.

It is with particular pleasure we embrace this opportunity of expressing our obligations to our friend Dr. S. G. Morton, whose intimate acquaintance with the subject, and classical knowledge, are only equalled by the kindness and industry he has displayed in facilitating the work.

There are others whose names it would gratify us to mention, but who, we know, will be more pleased by our silence. The countenance they gave us on the present occasion has only increased the debt previously incurred.

B. E.

INTRODUCTION.

Before entering upon the main object of this work, it is necessary to notice a few circumstances which pertain more especially to Pharmaceutic Chemistry, yet appear to be called for in this place; and though they are familiar to every educated physician, may be useful to the student who has not yet turned his attention to prescriptions.

In the first place, it is requisite to be well acquainted with the *signs of quantity*, or those symbolic characters which are used in writing prescriptions. In the ancient practice of medicine, there were very many of these symbols, not only for the purpose of denoting the quantity of the ingredient, but the ingredient itself. Most of these, however, have become obsolete; and a few only are retained as indispensable to the convenience of the practitioner. These will be found in the following *Table*, which is adopted in the Pharmacopœias for the regulation of *weights*.

English Name.	Latin Name.	Symbol.	Contains.
A pound,	Libra,	℔,	12 ounces.
An ounce,	Uncia,	℥,	8 drams.
A dram,	Drachma,	ʒ,	3 scruples.
A scruple,	Scrupulus,	℈,	20 grains.

In the manipulation of *liquid substances, measures* have in most countries superseded the use of *weights*. The *Table of Measures* recommended by the London College, gives particular names and symbols to the parts forming a gallon, in order to prevent their being confounded with those denoting weights; as in the following *Table* :—

English Name.	Latin Name.	Symbol.	Contains.
A gallon,	Congius,	none,	8 pints.
A pint,	Octarius,	O,	16 fluidounces.
A fluidounce,	Fluiduncia,	f ℥,	8 fluidrams.
A fluidram,	Fluidrachma,	f ℥,	60 minims.

The *minims* used in the Table, have been adopted in the United States Pharmacopœia in place of *drops;* and although we have not employed this measure in our prescriptions, yet we can readily perceive it to possess some important advantages over the ancient practice. The symbol (♏) is sometimes used by medical writers, though very improperly, to denote both minims and drops.[1] The size of a drop varies according to the greater or less fluidity and gravity of the liquid, and the shape of the vessel from which it is dropped; but, as a general rule, we cannot do better on these occasions than use a small phial with a thin edge. Dr. Dorsey observes that, whenever great precision is necessary, it is easy to dilute the active medicine, and give it in form of a mixture. If sixty grains be diffused in six ounces of water, for instance, each half ounce will contain five.

[1] Ten minims of most fluids, if measured by the graduated minim measure, are equal to about fifteen drops.

Mr. Durand, of this city, has made various experiments to ascertain *the number of drops of different liquids equivalent to a fluidram;* and his results, which are of practical importance, are given in the following table:—

	Drops.
Acetone,	110
Acid acetic (crystallizable),	120
Acid hydrocyanic (medicinal),	45
Acid muriatic,	54
Acid nitric,	84
Acid nitric, diluted (1 to 7),	91
Acid sulphuric,	90
Acid sulphuric aromatic,	120
Acid sulphuric, diluted (1 to 7),	54
Alcohol, rectified spirit,	138
Alcohol diluted, proof spirit,	120
Arsenite of potassa, solution of,	57
Chloroform,	260
Ether sulphuric,	150
Oil of aniseed, of cinnamon, of cloves, of peppermint, of sweet almond, of olives,	120
Tincture of assafetida, of foxglove, of guaiac, of opium,	120
Tincture of muriate of iron,	132
Vinegar distilled,	78
Vinegar of colchicum,	78
Vinegar of opium (black drop),	78
Vinegar of squills,	78
Water distilled,	45
Water of ammonia (strong),	54
Water of ammonia (weak),	45
Wine Teneriffe,	78
Wine antimonial,	72
Wine of colchicum,	75
Wine of opium,	78

Now it is evident from the preceding facts, that in

furnished by Gaubius and Dr. Young, for ascertaining the proper doses of medicines for children, are given below.

Gaubius takes the dose for an adult as unity, and for other ages, as follows :—

One year old,	$\frac{1}{13}$	Seven years old	$\frac{1}{3}$
Two years "	$\frac{1}{8}$	Fourteen " "	$\frac{1}{2}$
Three " "	$\frac{1}{6}$	Twenty " "	$\frac{2}{3}$
Four " "	$\frac{1}{4}$	From twenty to sixty years old	1

Dr. Young says : "For children under twelve years, the doses of most medicines must be diminished in the proportion of the age, to the age increased by 12." Thus, for a child of two years, = 2 : 2+12 : : the adult dose, or 1 : to the child's dose, or 7. Or, to state it more simply, $\frac{2}{2+12}=\frac{1}{7}$. Hence,

For one year $\frac{1}{1+12}=\frac{1}{13}$

" two years $\frac{2}{2+12}=\frac{1}{7}$

" three " $\frac{3}{3+12}=\frac{1}{5}$

" four " $\frac{4}{4+12}=\frac{1}{4}$

" six " $\frac{6}{6+12}=\frac{1}{3}$

&c. &c.

At twelve, the dose is one-half that of the adult.

TABLE

OF THE

DOSES OF MEDICINES ARRANGED IN ALPHABETICAL ORDER.

In preparing the following Table, a great object has been to present, at a glance, the minimum and medium doses of each medicine; or, as sometimes happens in respect to the more familiar articles, the ordinary dose, as in many of the infusions and tinctures. It is necessary to premise that these preparations are adapted to adult age; nor can any precise rule be laid down which will be applicable to all the periods of life between that period and early infancy. Nothing but the cautious observation and judgment of the physician can possibly supply this deficiency. The best mode of giving active medicines to infants is in solution or suspension, so that the dose may be readily and safely graduated in reference to age, constitution, and disease. As the same medicine will sometimes be found in several different classes of the Materia Medica, its dose must be varied accordingly. Thus, ipecacuanha is both an emetic and diaphoretic, and the large dose we give for the former indication would not bear the necessary repetition for the second. Calomel is purgative and alterative; but in the table we

only give the dose necessary to produce the first of these effects; and so also of many other medicines. Here again the formulæ, as given under the several Classes, provide the necessary information in detail.

We would also impress upon every practitioner, the vital importance of knowing the properties and strength of a medicine before prescribing it; and this caution is especially requisite in directing those preparations, which in an overdose, produce distressing and sometimes fatal effects. No prescription of this kind should ever be copied at random, and without first satisfying one's self, by a little calculation, whether the proportions directed in it are safe and consistent; and we would farther insist that the use of every poisonous medicine should be commenced in a *minimum* dose, and gradually increased according to its effects on the system. It is often necessary, also, in these instances, to put the patient on his guard in case any inordinate or unusual symptoms should arise, with a request that the prescription, in such contingency, may be taken in less quantity, at longer intervals, or discontinued. This precaution is all-important, for example, in the administration of alterative doses of the mercurial preparations; for the same quantity that would have little or no effect on one person, might, and often does produce a violent and deleterious effect on another. This remark is also equally applicable to the whole class of narcotic medicines.

In truth, nothing but *habitual circumspection* in prescribing medicines, can render this art beneficial to the patient, or honorable to the physician.

TABULAR VIEW

OF THE

DOSES OF THE PRINCIPAL ARTICLES OF THE MATERIA MEDICA.

Absinthium, ℈j. to ij.
Acetonum, gtt. x. to xxx.
Acetum, f℥j. to iv.
Acidum Arseniosum, gr. $\frac{1}{10}$.
——— Benzoicum, gr. x. to xxx.
——— Boracicum, gr. v. to xx.
——— Gallicum, gr. v. to x.
——— Hydrocyanicum dilutum, gtt. j. to ij.
——— Muriaticum dilutum, gtt. xx. to lx.
——— Nitricum dilutum, gtt. x. to xl.
——— Nitro-muriaticum, gtt. iij. to iv.
——— Sulphuricum dilutum, gtt. x. to xxv.
——— Sulphuricum Aromaticum, gtt. x to xxv.
——— Tannicum, gr. ij. to v.
——— Tartaricum, ℈j. to ij.
Aconiti Folia, gr. j. to ij.
———, Extractum, gr. j.
———, Extractum Alcoholicum, gr. ½.
——— Foliorum, Tinctura, gtt. xx.
——— Radicis, Tinctura, gtt. v. to viij.
Æther, gtt. l. to f℥j.
———, Spiritus Compositus, f℥j.
Ætheris Nitrici, Spiritus, f℥j.
Allium, ℈ss. to ℈j.
Allii, Succus, f℥ss.
——, Syrupus, f℥j. to iv.
Aloe, gr. x. to xx.
Aloe et Canella, gr. v. to xx.
Aloës, Tinctura, f℥ss.
——, Vinum, f℥j. to f℥ss.
Alumen, gr. x. to xx.
——— Exsiccatum, gr. v. to x.
Ammoniæ Acetatis, Liquor, f℥ss. to j.
——— Carbonas, gr. v. to x.
——— Phosphas, gr. x. to xl.
——— Murias, gr. v. to xv.
——— Aromaticus, Spiritus, gtt. xx. to f℥j.
Ammoniacum, gr. x. to xx.
Ammoniaci, Mistura, f℥ss.
Angustura, gr. x. to xxx.
Angusturæ, Infusum, f℥ij.
Anthemis, ℈ss. to j.
Anthemidis, Infusum, f℥j. to ij.
Antimonii Sulphur. Præcipitatum, gr. j. to v.
Antimonii, Oxidum, gr. iij. to v.
——— et Potassæ Tartras, gr. ⅛ to iij.
———, Vinum, gtt. x. to f℥j.
Antimonialis, Pulvis, gr. iij. to x.
Apocynum, gr. x. to xxx.
Argenti Nitras, gr. ¼.

Argenti Cyanuretum, gr. $\frac{1}{12}$.
——— Iodidum, gr. $\frac{1}{2}$ to ij.
——— Oxidum, gr. $\frac{1}{2}$.
Arnica, gr. v. to xx.
Arseniosum Acidum, gr. $\frac{1}{10}$.
Arsenici Iodidum, gr. $\frac{1}{8}$.
Arsenici et Hydrargyri Iodidi, Liquor, gtt. v. to x.
——— Potassæ Arsenitis, Liquor, gtt. x.
Asclepias Tuberosa, gr. xx. to ℥j.
Assafœtida, gr. x.
Assafœtidæ, Mistura, f℥ss.
———, Tinctura, f℥j.
Atropia, gr. $\frac{1}{30}$.
Auri Sales, gr. $\frac{1}{18}$ to $\frac{1}{10}$.

Balsamum Peruvianum, f℥ss.
——— Tolutanum, gr. x. to xxx.
——— Tolutanus Syrupus, f℥ss.
——— Tolutana Tinctura, f℥j.
Barii Chloridi, Liquor, gtt. v.
Bebeerinæ Sulphas, gr. iij. to xx.
Belladonna, Folia, gr. j.
Belladonnæ, Extractum, gr. $\frac{1}{4}$.
———, Extractum Alcoholic. gr. $\frac{1}{2}$.
———, Tinctura, gtt. xv. to xx.
Bismuthi, Subnitras, gr. v. to x.
Brominium, gtt. $\frac{1}{7}$.
Brucia, gr. $\frac{1}{8}$ to $\frac{1}{4}$.
Buchu, gr. xx. to xxx.
———, Infusum, f℥ij.

Cahinca, ℈j. to ℥j.
Calamus, ℈j. to ℥j.
Calcis, Liquor, f℥j. to ij.
Calcii Chloridi, Liquor, gtt. xxx. to f℥j.
Calx Chlorinata, gr. iij. to vj.
—— Creta præparata, gr. x. to xxx.
—— Testa præparata, gr. x. to xxx.
Camphora, gr. v. to x.
Camphoræ, Aqua, f℥ss.
———, Tinctura, gtt. v. to xx.
Canella, gr. x. to xxx.
Cantharis, gr. j. to ij.
Cantharidis, Tinctura, gtt. x. to xxv.
Capsicum, gr. v. to x.
Capsici, Tinctura, f℥ss.
Cardamomum, gr. x. to xxx.
Carum, gr. xx. to xl.
Caryophyllus, gr. v. to x.
Caryophylli Oleum, gtt. ij.
Cascarilla, gr. xx. to xxx.
Castoreum, gr. x. to xx.
Castorei Tinctura, gtt. xx. to l.
Catechu, gr. x. to xxx.
———, Tinctura, f℥j. to ij.
Cerevisiæ Fermentum, f℥ss. to ij.
Cetrariæ, Decoctum, f℥ij.
Chenopodium, ℈j. to ij.
Chenopodii, Oleum, gtt. v. to x.
Chimaphilæ, Decoctum, f℥ij.
Chloroformum, gtt. xx. to l.
Chondri, Decoctum, ad libitum.
Cimicifuga, ℈j. to ℥j.
Cinchona, gr. xx. to xxx.
Cinchonæ, Extractum, gr. x. to xx.
———, Infusum, vel ———, Decoctum, } f℥j. to ij.
———, Tinctura, f℥j. to iv.
———, Tinctura Composita, f℥j. to iv.
Cinnamomum, gr. x. to xx.
Cinnamomi, Aqua, f℥ss.
———, Oleum, gtt. j. to ij.
———, Tinctura Composita, f℥j. to ij.
Coccus, gr. j. to x.
Colchici Radix, gr. ij. to vj.
——— Semen, gr. ij. to vj.
——— Radicis, Vinum, gtt. x. to xx.
——— Seminis, Vinum, f℥j.
——— Seminis, Tinctura, f℥ss. to j.
Colchici, Acetum, f℥ss. to j.
———, Extractum Aceticum, gr. j.
Colocynthis, gr. v. to x.
Colocynthidis, Extractum Compositum, gr. x. to xv.
Colomba, gr. x. to xxx.
Colombæ, Infusum, f℥ij.

Colombæ, Tinctura, f℥j. to iv.
Conii Folia, gr. iij.
——, Extractum, gr. ij.
——, Tinctura, gtt. xx. to xxx.
Copaiba, f℥ss. to j.
Copaibæ, Oleum, gtt. x. to xv.
Coptis, gr. x. to xxx.
Coriandrum, ℈j. to ℥j.
Creasotum, gtt. j. to ij.
Creta præparata, gr. xv. to ℥j.
Crocus, gr. x. to xxx.
Cubeba, ℥ss. to iij.
Cubebæ, Extractum Fluidum, ♏x. to xxx.
———, Oleum, gtt. x. to xij.
———, Tinctura, f℥ss. to j.
Cuprum Ammoniatum, gr. ¼ to ½.
Cupri Sulphas, gr. ¼ to ij.

Dippel's Animal Oil, gtt. v. to x.
Digitalis, gr. j.
———, Infusum, f℥ij. to iv.
———, Tinctura, gtt. x.
Digitalin, gr. $\frac{1}{40}$.
Donovan's Solution, gtt. v. to xx.
Dover's Powder, gr. x.
Dracontium, gr. x. to xx.
Dulcamara, ℥ss. to j.
Dulcamaræ Decoctum, f℥ij.

Elaterium, gr. ⅛.
Elaterin, gr. $\frac{1}{160}$.
Ergota, gr. xx.
Ergotæ, Vinum, f℥j. to ij.
Ether, gtt. l. to f℥j.
Eupatorii, Infusum, f℥ij.
Extractum sive Resina Cannabis, gr. ¼ to ½.

Fel Bovinum, gr. v. to x.
Ferri Pulvis, gr. iij. to v.
—— Chloridi, Tinctura, gtt. x. to xxv.
—— Citras, gr. v. to x.
—— Ammonio-Citras, gr. v.
—— et Potassæ Tartras, gr. x. to xx.
—— Ferrocyanuretum, gr. iij. to v.
—— Iodidi, Liquor, gtt. x. to l.
—— Nitratis, Liquor, gtt. viij. to x.
Ferri Phosphas, gr. v. to x.
—— Subcarbonas, gr. x. to ℥ij.
—— Carbonatis, Pilulæ, gr. x.
—— Sulphas exsiccatum, gr. ij. to v.
—— Valerianas, gr. j.
—— Vinum, f℥ss.
Ferrum Ammoniatum, gr. v. to x.
Filix Mas, ℥j. to ij.
Fœniculum, ℈j. to ℥ss.
Fœniculi, Aquæ, f℥ss.
Fowler's Solution, gtt. x.

Galla, gr. x. to xx.
Gambogia, gr. ij. to iij.
Gaultheriæ Oleum, gtt. ij. to v.
Gentiana, gr. x. to xxx.
Gentianæ, Extractum, gr. x. to xx.
——— Composita, Tinctura, f℥j. to ij.
Gillenia, gr. xx. to xxx.
Granati Fructûs Cortex, gr. xx. to xxx.
Guaiaci Resina, gr. x. to xx.
——— Ammoniata, Tinctura, f℥j.

Hæmatoxyli, Extractum, gr. x. to xx.
Helleborus, gr. v. to xv.
Hellebori, Extractum, gr. v. to x.
———, Tinctura, gtt. xxx. to f℥j.
Hoffman's Anodyne, f℥j.
Hordei Decoctum, ad libitum.
Humuli, Tinctura, f℥ij.
Lupulina, gr. v. to x.
Lupulinæ, Tinctura, f℥j.
Hydrargyri Chloridum Corrosivum, gr. $\frac{1}{12}$ to ⅛.
———— Chloridum mite, gr. ¼ to x.
———— Cyanuretum, gr. $\frac{1}{16}$ to ⅛.
———— Iodidum, gr. ½ to j.
———— Iodidum Rubrum, gr. $\frac{1}{160}$.
———— Oxidum Nigrum, gr. ⅛ to iij.
———— Oxidum Rubrum, not used internally.
———— Sulphas Flavus, gr. ¼ to v.

Hydrargyri Sulphuretum Nigrum, gr. v. to x.
———— Sulphuretum Rubrum, gr. x.
Hydrargyrum cum Creta, gr. v. to xv.
———— cum Magnesia, gr. v. to xv.
Hyoscyami Folia, gr. v. to x.
————, Extractum, gr. ij.
————, Tinctura, f℥ss. to j.

Inula, ℈j. to ℥j.
Iodinium, gr. ¼ to j.
Iodinii, Tinctura, gtt. v. to x.
Iodinii Compositus, Liquor, gtt. v. to x.
——— Composita, Tinctura, gtt. xv. to xxx.
Ipecacuanha, gr. ij. to xx.
Ipecacuanhæ, Syrupus, f℥j. to ij.
————, Vinum, f℥j. to iv.
Ipecacuanhæ et Opii, Pulvis, gr. x.

Jalapa, gr. x. to xx.
Jalapæ, Extractum, gr. x. to xv.
———, Tinctura, f℥j. to ij.
Juglandis, Extractum, gr. xx. to xxx.
Juniperi, Baccæ, ℥j. to ij.
———, Oleum, gtt. v. to xv.
——— Compositus, Spiritus, f℥j. to iv.

Kino, gr. x. to xx.
——, Tinctura, f℥j. to ij.
Kousso, Flores, ℥ss.
Krameria, gr. xx. to xxx.
Krameriæ, Extractum, gr. x. to xx.
————, Syrupus, f℥j. to ij.

Lactucarium, gr. iij. to x.
Lappa, ℥j.
Lauro-Cerasi, Aqua, f℥ss. to j.
Lavandulæ, Oleum, gtt. ij. to v.
———— Compositus, Spiritus, f℥ss. to j.
Liriodendron, ℥ss. to ij.
Lobelia, gr. v. to x.
Lobeliæ Tinctura, gtt. xx. to f℥j.
Lugol's Solution, gtt. v. to x.
Lupulina, gr. v. to x.
Lupulinæ, Tinctura, f℥j.

Magnesia, ℥ss. to j.
Magnesiæ Carbonas, ℥ss. to j.
———— Citratis Liquor, f℥iv. to vj.
———— Sulphas, ℥j.
Magnolia, ℥ss. to j.
Manganesii Oxidum gr. iij. to x.
———— Iodidi, Liquor, gtt. x. to xxx.
———— Sulphas, ℈j. to ℥ij.
Manna, ℥j.
Mannite, ℥j.
Matico, ℥ss. to ij.
Matricaria, ℥ss. to j.
Menthæ Piperitæ, Oleum, gtt. j. to ij.
————, Tinctura, gtt. x. to xx.
————, Aqua, f℥ss.
Menthæ Viridis, Aqua, f℥ss.
Mezerei Decoctum, f℥ij. to iv.
Mistura Cretæ, f℥ss. to j.
Monardæ Oleum, gtt. ij. to iij.
Morphiæ Acetas, gr. ⅛.
———— Murias, gr. ⅛.
———— Sulphas, gr. ⅛.
———— Sulphatis, Liquor, f℥j. to ij.
Moschus, gr. x.
Mucunæ Electuarium, f℥j. to f℥ss.
Myrrha, gr. x. to xx.
Myrrhæ Tinctura, f℥ss. to j.

Naphthaline, gr. ij. to xv.
Nucis Vomicæ, Extractum, gr. ss. to j.
Nux Vomica, gr. iij. to v.

Oleum Amygdalæ Amaræ, gtt. ¼ to j.
——— Anisi, gtt. v. to x.
——— Cajuputi, gtt. ij. to v.
——— Limonis, gtt. ij. to iv.
——— Morrhuæ, f℥ss.
——— Olivæ, f℥j.
——— Pimentæ, gtt. ij. to v.
——— Ricini, f℥j.
——— Rosmarini, gtt. ij. to iij.

Oleum Rutæ, gtt. ij. to iij.
——– Sabinæ, gtt. ij. to iij.
——– Sassafras, gtt. iv. to vj.
——– Succini Rectificatum, gtt. v. to xv.
——– Terebinthinæ, gtt. x. to f℥ij.
——– Tiglii, gtt. ½ to ij.
Opium, gr. j.
Opii, Acetum, gtt. x.
——, Confectio, gr. x.
——, Extractum, gr. ss.
——, Tinctura, gtt. xx. to xxv.
—— Acetata, Tinctura, gtt. xx.
—— Camphorata, Tinctura, f℥j. to ij.
——, Vinum, gtt. xx. to xxv.
——, McMunn's Elixir, gtt. xx. to xxv.

Pareira, ℥ss. to j.
Petroleum f℥ss. to ℥j.
Phloridzin, gr. x. to xij.
Piperis Fluidum, Extractum, gtt. j. to iij.
Pix Liquida, ℥ss. to j.
Plumbi Acetas, gr. j. to iij.
——– Iodidum, gr. ss. to iij.
——– Nitras, gr. ¼ to ½.
Podophylli, Extractum, gr. v. to xv.
Podophyllin, gr. ss. to ij.
Potassæ Liquor, gtt. x. to xx.
——— Arsenitis, Liquor, gtt. x.
——— Acetas, ℈j. to ℥ij.
——— Bitartras, ℥j. to ij.
——— Carbonas Purus, gr. x.
——— Bicarbonas, gr. x. to ℥ss.
——— Chloras, gr. x. to xxx.
——— Citras, gr. xx. to xxv.
——— Citratis, Liquor, f℥ss.
——— Nitras, gr. x. to xv.
——— Sulphas, ℥ss. to j.
——— Tartras, ℥j. to ℥ss.
Potassii Bromidum, gr. iij. to x.
——— Cyanuretum, gr. ⅛ to ¼.
——— Ferrocyanuretum, gr. x. to xv.
——— Iodidum, gr. iij. to x.
——— Sulphuretum, gr. ij. to vj.
Prunus Virginiana, ℥ss. to j.
Pruni Virginianæ, Infusum, f℥ij.
——, Syrupus, f℥ss.
Pulvis Aromaticus, gr. x. to xx.
——— Doveri, gr. x.

Quassiæ, Extractum, gr. ij. to v.
———, Tinctura, f℥j. to ij.
Quercus Alba, et Q. Tinctoria, gr. xx. to ℥j.
Quiniæ Sulphas, gr. j. to x.
——— Valerianas, gr. ij. to vj.
——— et Ferri Citras, gr. iij. to x.

Rhamni Syrupus, f℥ss.
Rheum, ℈j. to ℥ss.
Rhei Fluidum, Extractum, f℥ss.
—— Aromaticus, Syrupus, f℥j. to iv.
——, Tinctura, f℥ss.
——, Vinum, f℥ij.
Rubia, ℈j. to ℥ss.
Rubus Villosus, et R. Trivialis, ℈j. to ℥ss.

Sabbatia, ℥ss. to j.
Sabina, gr. v. to x.
Sabinæ Oleum, gtt. ij. to iij.
Salicin, gr. ij. to x.
Sanguinariæ Tinctura, f℥ss. to j.
Santonine, gr. iij. to iv.
Sarsaparillæ, Extractum, gr. x. to xx.
———— Fluidum, Extractum, f℥j.
———— Compositus, Syrupus, f℥ss.
Scammonium, gr. v. to xv.
Scilla, gr. j. to ij.
Scillæ, Acetum, f℥ss. to j.
——, Syrupus, f℥j.
—— Compositus, Syrupus, f℥ss. to j.
——, Oxymel, f℥j. to ij.
Senega, gr. x. to xx.
Senegæ Syrupus, f℥j. to ij.
Senna, ℥ss. to ℥ij.
Sennæ Confectio, ℥j. to ij.
—— Fluidum, Extractum, f℥ss.
Serpentaria, gr. x. to xxx.
Serpentariæ Tinctura, f℥j.

Simaruba, ℈j. to ʒj.
Sinapis (as an emetic), ʒij.
Sodæ Acetas, ℈j. to ʒj.
—— Boras, ℈j. to ij.
—— Carbonas, gr. v. to xx.
—— Bicarbonas, gr. x. to xxx.
—— Phosphas, ℥ss. to j.
—— Sulphas, ℥ss.
—— et Potassæ Tartras, ʒij. to ℥ss.
Sodii Chloridum, gr. x. to ʒij.
Spigelia, gr. x. to ʒj.
Spigeliæ et Sennæ Fluidum, Extract. fʒj. to f℥ss.
Spiritus Ætheris Nitrici, fʒj.
Spiritus Ætheris Compositus, fʒj.
Spiritus Pyroxilicus, gtt. x. to xl.
Stanni Pulvis, ℥ss.
Stramonium, gr. j. to ij.
Stramonii Foliorum, Extractum, gr. j.
———— Seminis, Extractum, gr. ¼ to ½.
———— Tinctura, gtt. xx. to xxx.
Strychnia, and its salts, gr. $\frac{1}{12}$ to ⅛.
Styrax, gr. x. to xx.
Sulphur, ℈j. to ʒij.
Sulphuris Iodidum, gr. j.

Tabacum, gr. j. to v.
Tabaci, Vinum, gtt. x. to xx.
Taraxaci, Extractum, ℈j. to ʒj.
Terebinthina, ℈j. to ij.
Testa præparata, gr. x. to l.

Ulmi, Infusum, ad libitum.
Uva Ursi, ʒss. to j.

Valeriana, ʒss. to j.
Valerianæ Fluidum, Extractum, fʒj.
————, Oleum, gtt. v.
————, Tinctura, fʒj to ij.
Veratrum Album, gr. j. to iij.
Veratri Albi Vinum, gtt. x. to xx.
Veratrum Viride, gr. j. to iij.
Veratria, and its salts, gr. $\frac{1}{12}$ to ⅛.

Zinci Acetas, gr. j. to ij.
—— Chloridum, gr. ¼ to ij.
—— Cyanuretum, gr. $\frac{1}{12}$ to ¼.
—— Oxidum, gr. ij. to v.
—— Sulphas, gr. j. to x.
—— Valerianas, gr. j. to ij.
Zingiber, gr. x. to xx.
Zingiberis Tinctura, fʒj.

BOOK I.

OF

INTERNAL REMEDIES.

CLASS I.

EMETICS.

Emetics are medicines which excite vomiting, independently of any effect arising from the mere quantity of matter introduced into the stomach.

In the administration of Emetics a few simple rules are worthy of attention. Whatever may be the apparent necessity for emptying the stomach, we must take into consideration all the circumstances of the case, and more particularly if there be much arterial excitement with determination to the head; for where these symptoms are present, bloodletting should be sometimes premised.

When it is required, as in cases of poisoning, a full dose of the emetic substance is to be administered; but in the generality of instances, it is better to give it in divided doses, frequently repeated, until the desired effect is produced. In cases of torpor or congestion, it is sometimes requisite to arouse the system by retching or vomiting, which may be done by administering the emetic with only a small quantity of fluid; but when the object is to empty the stomach and duodenum merely, free draughts of tepid water or weak chamomile tea ought to be given as soon as nausea takes place.

When *poisons* have been taken, our object is to evacuate the stomach as speedily as possible, and for this purpose we select an emetic which is prompt in its action. But where the excitability of the stomach is greatly diminished by a *Narcotic*, it is necessary to assist the emetic by the addition of some excitant. When such an effect is caused by opium, the system may be generally rendered susceptible by the use of vinegar, mustard, or ammonia. In these cases, however, the stomach-tube is our best resource.

The evacuation of the stomach may be greatly facilitated by tickling the fauces with a feather, or introducing the point of the finger as far back as possible and titillating the parts. If

this fails, a resort to another article of the same class will often accomplish the object.

There are a few cases in which emetics are obviously inadmissible, as in apoplexy, or where there is great determination of blood to the head, depending upon constitutional causes; pregnancy; hernia; prolapsus uteri; active hemorrhage from the lungs and uterus; acute gastritis, &c. If emetic medicines are ever allowable in these diseases it is for the most part in nauseating doses only.

By the frequent use of emetics the stomach acquires an increased susceptibility to their action; hence persons of delicate habits should use them cautiously.

When excessive vomiting occurs, it may be checked by resorting to some one or more of the following resources:—

Ice, broken into small pieces and allowed to dissolve in the mouth.

Lime-water and milk, a tablespoonful of each, mixed cold and given at intervals of fifteen or twenty minutes.

A drop or even half a drop of creosote, mixed in a wine-glass of cold water, of which give a teaspoonful every 15 or 20 minutes.

The infusion of camphor made with boiling water and given *cold*, a teaspoonful frequently repeated.

Brandy and water, and clove and green tea, conduce to the same end; and where other internal means fail in irritable constitutions, an anodyne injection will sometimes accomplish the object.

Among external appliances, mustard to the epigastrium is one of the best; also, spice-plasters and hot fomentations of brandy and cloves.

EMETIC POWDERS.

Powder of Ipecacuanha.

℞. Pulveris Ipecacuanhæ, ℈ij.

Divide it into two doses. *Signa.*—One to be taken in a little molasses or sugar and water, and followed by a draught of tepid water. If one powder does not produce the desired effect, the second to be taken in like manner.

Powder of Ipecacuanha with Tartarized Antimony.

℞. Pulveris Ipecacuanhæ, ʒss.
Antimonii et Potassæ Tartratis, gr. ij.

Misce, et divide in pulveres ij.—To be taken in the same manner as the former.

Tartar emetic increases the efficacy of ipecacuanha, producing a more prompt and certain effect than the latter drug. This combination is an eligible one in most cases where emetics are indicated. When tartar emetic is given alone, it is generally in solution, a formula for which will be found below.

Powder of Alum.

℞. Aluminis, ℥j.
Fiat pulvis.

This is highly recommended by Dr. Meigs in croup. "It is best given in the state of fine powder, mixed with honey, sirup of any kind, or molasses."

The dose is a teaspoonful, to be repeated every fifteen minutes until free emesis is produced. MEIGS.

Turpeth Mineral.

℞. Hydrargyri Sulphatis flavi, gr. xij.
Divide in pulveres iv.
Dose, one powder for a child three years old, to be repeated, in croup, every fifteen minutes, until emesis is produced. "If the first dose fails, the second usually acts as soon as it touches the stomach." HUBBARD.

In cases of narcotic poisoning it is necessary to resort to the most prompt and certain means of evacuating the stomach. Ipecacuanha was formerly thought to be a specific for poisoning by opium, but experience has shown that mustard, salt, alum, turpeth mineral, and the sulphates of zinc and copper are more reliable.

Powder of Mustard.

℞. Pulveris Sinapis, ℥j.
Signa.—Take a teaspoonful in a cupful of tepid water every ten minutes.

This is a very prompt and safe emetic.

Emetic of Common Salt.

℞. Sodii Chloridi, ℥j.
Signa.—Administer one-half in a cupful of warm water, and repeat the dose in ten minutes.

Salt frequently proves a prompt and efficient emetic, invigorating rather than depressing the powers of the system.

Powder of Sulphate of Copper.

℞. Cupri Sulphatis, gr. ij.
Signa.—To be given in a little sirup and water.

This medicine is seldom employed as an emetic except in those cases of poisoning where other articles have failed, or are not at hand. It should be followed by a large draught of warm water. All vegetable astringent infusions are incompatible substances.

Powder of Sulphate of Zinc.

℞. Zinci Sulphatis, gr. x. vel ʒss.
Signa.—To be taken in molasses, and followed by a draught of warm water.

This medicine is very prompt in its operation and very generally employed in cases of poisoning. It is also used as a nauseating remedy in phthisis; and both as an emetic and tonic in dyspepsia. The stomach is said to be invigorated, rather than exhausted by its operation.

Powder of Ipecacuanha and Calomel.

℞. Pulveris Ipecacuanhæ, gr. viij.
Hydrargyri Chloridi Mitis, gr. v.
Misce.

This powder generally proves both emetic and purgative in a child five years old.

Powder of Ipecacuanha with Rhubarb.

℞. Pulveris Ipecacuanhæ,
——— Rhei, āā ℈j.
Misce. *Signa.*—To be taken in sirup.

More or less purging will generally follow the emetic operation of this dose.

EMETIC WINES AND TINCTURES.

Wine of Ipecacuanha with Antimony.

℞. Vini Ipecacuanhæ, fʒj.
Antimonii et Potassæ Tartratis, gr. j.
Fiat solutio. *Signa.*—A teaspoonful to be taken every ten or fifteen minutes, until vomiting is induced, which may be assisted with tepid drinks.

Antimonial Wine.

℞. Vini Antimonii, f℥j.
Signa.—A teaspoonful to be taken every ten or fifteen minutes, until free emesis is effected.

If antimonial wine is given for the purpose of producing speedy vomiting, we may safely give half an ounce of it at once; and in the croup of infants, twenty drops every fifteen minutes, until the medicine operates, is a safe dose.

Tincture of American Hellebore.

℞. Radicis Veratri Viridis, ℥viij.
Alcoholis, Oj.
Macera per dies decem, vel quatuordecim, et exprime.
Signa.—Dose for an adult, six to eight drops every three hours, and to be increased one or two drops each dose, until nausea, vomiting, or a reduction of the frequency of the pulse takes place. Then reduce to one-half in all cases. NORWOOD.

Dr. Norwood describes this article as a good diaphoretic, a prompt and efficient emetic, and an arterial sedative of the first rank. He recommends its use in hooping-cough, croup, inflammation of the lungs, and typhoid fever.—*Southern Med. and Surg. Journal*, Jan. 1853.

Tincture of Lobelia.

℞. Tincturæ Lobeliæ, f℥j.
Signa.—Give a teaspoonful every two hours in asthma.

This quantity will produce distressing nausea in other diseases, and sometimes will even cause vomiting.

EMETIC SOLUTIONS AND MIXTURES.

Solution of Tartrate of Antimony.

℞. Antimonii et Potassæ Tartratis, gr. iv.
Sacchari, ℥j.
Aquæ destillatæ, f℥iv.
Misce, et fiat solutio.—A tablespoonful to be given every ten or fifteen minutes, until it operates freely.

Solution of Sulphate of Zinc and Alum.

℞. Zinci Sulphatis, ℥iss.
Aluminis, ℥ss.
Aquæ ferventis, Oss.
Misce.—Let the solution be filtered through blotting-paper.—A

tablespoonful for adults, and a teaspoonful for a child of six months old (and so on in proportion to the strength and age of the patient), every morning upon an empty stomach.

This is the celebrated *solutio vitriolica* of Dr. Mosely, who principally employed it in dysentery and phthisis pulmonalis.

Solution of Emetia.

℞. Emetiæ fuscæ, gr. iv.
Aquæ destillatæ, f℥ij.
Syrupi, f℥ss.
Fiat solutio. *Signa.*—Give two teaspoonsful every half hour.
Emetia is destitute of the peculiar odor and nauseous taste of ipecacuanha, and may therefore be preferable in some cases.

It will be observed that we have introduced the impure or colored emetia, which is much less energetic than the perfectly white alkali. The best antidote for an overdose, is a strong infusion of nutgalls.

Mixture of Ipecacuanha, &c.

℞. Pulveris Ipecacuanhæ, ℥ss.
Antimonii et Potassæ Tartratis, gr. j.
Tincturæ Scillæ, f℥j.
Aquæ destillatæ, f℥vij.
Fiat mistura. *Signa.*—Four tablespoonsful at first; afterwards two tablespoonsful every ten minutes until vomiting is induced.

This mixture is recommended in dropsies previously to giving digitalis.

Infusion of Ipecacuanha.

℞. Pulveris Ipecacuanhæ, ℥ij.
Aquæ bullientis, f℥vj.
Macerate for one hour and filter.—Of this from one to two tablespoonsful may be given every half hour, until it excites vomiting.

Infusion of Lobelia Inflata, or Indian Tobacco.

℞. Lobeliæ, ℥j.
Aquæ bullientis, Oj.
Fiat infusio. *Signa.*—A small wineglassful may be taken every half hour, until vomiting succeeds.

This remedy is too hazardous and distressing for ordinary use; but in asthma, and some spasmodic affections, much bene-

fit is often experienced. It should, however, be administered with extreme caution.

Infusion of Tobacco.

℞. Tabaci, ʒj.
Aquæ bullientis, Oj.
Macera per horam unam in vase leviter clauso, et cola.

This infusion is characterized by the nausea and depression following its administration. It is only used for strangulated hernia, to reduce dislocations, for obstinate colic, and in spasm of the urethra. One-half of the above may be employed at one time as an enema, to be followed by the remaining portion in thirty minutes, if sufficient relaxation is not produced. One or two tablespoonsful by the mouth generally prove emetic.

Sirup of Seneka and Squills.

℞. Syrupi Scillæ Compositi, fʒj.
Signa.—Give from ten drops to a teaspoonful, every quarter or half hour, or hour, according to the age of the patient and violence of the disease.

This is the *hive sirup* of Dr. Coxe; it has acquired much confidence from its efficacy in croup; and should it not be sufficiently active in this violent disease, a grain of tartrate of antimony may be added to each ounce.

Sirup of Ipecacuanha.

℞. Syrupi Ipecacuanhæ, fʒj.
Signa.—Give a teaspoonful to a child two years old, every fifteen minutes until it proves emetic.

As one fluidounce only represents fifteen grains of the powdered root, this must be considered a weak preparation. The following formula employed in New York, I consider better: When made it affords three pints of sirup, which keeps well without crystallization. A fluidounce of this sirup is equivalent to one dram of powdered ipecacuanha.

Sirup of Ipecacuanha.

"℞. Take of Ipecacuanha, bruised, *six ounces* (troy),
Alcohol, *one pint and a half*,
Water, *one pint.*
Mix, to form a tincture. Digest for ten days, filter and add one pint of water by way of displacement, evaporate in a water

bath to two pints, add immediately, of refined sugar, *three pounds and a quarter* (troy) and bring to the boiling point."
COGGESHALL.

The dose as an emetic, and modes of using, are the same as above. EDITOR.

VARIOUS EMETIC PREPARATIONS.

Tartar Emetic and Quinia.

℞. Antimonii et Potassæ Tartratis, gr. iij.
Quiniæ Sulphatis, gr. x.
Misce, et divide in partes vj. equales.—This preparation is commended by Dr. Gola as successful in intermittent fever, when quinia alone produced no favorable result. He directs a powder to be given every two hours during the apyrexia. It causes both emesis and alvine evacuations, and prevents the recurrence of the paroxysm.

Emetic Lozenges of Emetia.

℞. Sacchari, ℥ij.
Emetiæ Impuræ, gr. xxxij.
Misce, et fiant trochisci singuli gr. xviij.
One of these lozenges, taken fasting, will generally produce vomiting in children. Three or four will speedily excite it in adults. MAGENDIE.

Tobacco Poultice.

℞. Tabaci, ℥j.
To be beat up with sufficient water to form a cataplasm, and applied to the region of the stomach, when emetics cannot be administered by the mouth. A dram or two of snuff mixed with lard, or a single tobacco-leaf bruised and softened with hot water and applied over the sternum of a child in croup, usually provokes vomiting. The utmost care should be taken to guard against the violent effects of tobacco, even when thus externally applied.

CLASS II.

CATHARTICS.

As a general rule it may be observed of cathartics that they are capable of fulfilling three different indications: 1. Simply to evacuate the bowels; 2. To excite an increased discharge from the mucous coat of the intestines; and 3. To stimulate the neighboring viscera, and cause them to secrete a greater quantity of their peculiar fluids. It seldom or perhaps never happens that the same article will produce these three different effects; and in order to accomplish them, we must combine different substances in one formula.

There are some, as magnesia, that produce their effect by absorbing the acid generated in the alimentary canal, and thus become converted into a purgative salt. There are others, as aloes, that expend their principal force upon the rectum and great intestines, and for this reason are very advantageously employed in diseases of the lower bowels and of the uterus and its appendages.

These remedies should always be given on an empty stomach; if administered immediately after a full meal, they arrest the digestive process, are liable to produce nausea, if not vomiting, and do not open the bowels with the same certainty or effect. When simple costiveness is to be removed, the evening may be selected for the exhibition of a cathartic.

If this should not prove sufficient, we can repeat the dose in the morning and at regular intervals through the day until the effect is produced. The principle, says Dr. Paris, which should govern our conduct in the administration of purgatives, may be briefly stated: *The excitement is to be repeated till the requisite action is induced*, yet no single *excitement being such as may prove an irritant to the organ.*

But in the treatment of many diseases, it is preferable to purge through the day, in order that the sleep of the patient may not be disturbed at night.

The operation of these remedies may be very much accelerated by the free exhibition of diluent drinks, such as gruel, barley water, &c. &c.

By combination we are enabled to modify and control the action of many remedies, and some of the most drastic purgatives may be made to operate mildly and yet certainly by uniting several of them in the same dose.

The addition of an emetic substance, such as tartar emetic, or ipecacuanha, in small quantities, gives activity to the combination, while it modifies the harshness of the drastic purgatives.

Finally, the operation of a cathartic may often be promoted by judicious venesection; and if spasm of the intestines be present, opium may be advantageously joined with the purgative.

PURGATIVE POWDERS.

Powder with Calomel and Jalap.

℞. Hydrargyri Chloridi Mitis, gr. v.
Pulveris Jalapæ, gr. x.
Misce. *Signa.*—To be given in molasses or sirup.

Powder with Calomel and Rhubarb.

℞. Hydrargyri Chloridi Mitis,
Pulveris Rhei, āā gr. v.
Olei Cinnamomi, gtt. j.
Misce. *Signa.*—To be given in molasses.

Powder with Calomel and Soda.

℞. Hydrargyri Chloridi Mitis, gr. viij.
Sodæ Bicarbonatis, gr. xij.
Misce. *Signa.*—To be given in molasses.

This combination forms a safe and mild purgative. Nausea seldom follows its administration.

Powder with Calomel, Jalap, and Rhubarb.

℞. Hydrargyri Chloridi Mitis, gr. v.
Pulveris Jalapæ,
——— Rhei, āā gr. v.
Olei Cinnamomi, gtt. j.
Misce. *Signa.*—To be given as the former.

Powder with Rhubarb and Magnesia.

℞. Pulveris Rhei, ℈j.
Magnesiæ, ℈ss.
Olei Cinnamomi, gtt. j.
Misce. *Signa.*—To be given in sirup, or sugar and water.

Calcined Magnesia.

℞. Magnesiæ, ʒj.

℞. Magnesiæ (Henry), ʒj.

℞. Magnesiæ (Husband), ʒj.

℞. Magnesiæ (Ellis), ʒj.

Magnesia is an antacid, and laxative, much used in the diseases of women and children. The lightness and consequent great bulk of the officinal powder, constitute serious objections to its use. To obviate these, Henry of England, and Thos. J. Husband, and Chas. Ellis and Co. of this city, have severally prepared a heavy magnesia as a substitute. Henry's magnesia has long been favorably known; Husband's and Ellis's are entitled to equal consideration with the imported article, since the experiments of Prof. Procter have shown that, for forming liquid mixtures, and for rapidity of antacid action, they are equal if not preferable to it.

Dose of either, from thirty grains to a dram, in milk or water. The operation of magnesia, when it meets with no acid in the bowels, is promoted by giving the patient lemonade.

Powder of Jalap and Cream of Tartar.

℞. Pulveris Jalapæ, ʒj.
Potassæ Bitartratis, ʒvj.
Misce, et divide in chartulas vj.
Signa.—Give one powder every three hours in molasses. This powder is a hydragogue cathartic. "It constitutes one of the best medicines which I have ever tried, as well in dropsical as in all other cases, where long-continued purging is demanded." Chapman.

Compound Powder of Jalap and Gamboge.

R. Pulveris Jalapæ Compositi, ʒiij.
——— Gambogiæ, gr. vj.
Misce, et divide in chartulas vj.
Signa.—Give one powder every two hours in molasses or sirup.

The compound powder of jalap has long been celebrated in dropsical affections; but it also forms a very convenient purge in many inflammatory cases. In order to increase its certainty and activity, we may conveniently add the Gamboge, as in the above formula.

Powder of Sulphur and Cream of Tartar.

℞. Sulphuris loti, ℥ss.
Potassæ Bitartratis, ℥j.
Misce. *Signa.*—Mix in a sufficient quantity of molasses, and give a teaspoonful three or four times a day to children. In some diseases of the skin.

It should be always recollected that sulphur promotes insensible perspiration in a very marked degree, and hence renders the patient more liable to be affected by vicissitudes of climate.

Powder with Milk of Sulphur and Calcined Magnesia.

R. Sulphuris præcipitati,
Magnesiæ, āā ℥ss.
Misce. *Signa.*—A teaspoonful to be taken three or four times a day.

This preparation is better adapted to delicate stomachs than the former. Either of them forms a good aperient during an alterative course of medicine. CHAPMAN.

Seidlitz Powders.

℞. Sodæ et Potassæ Tartratis, ℥ij.
Sodæ Bicarbonatis, ℈ij.
Fiat pulvis. *Signa.* To be dissolved in half a tumbler of cold water.

℞. Acidi Tartarici pulverizati, gr. xxv.
Signa.—Dissolve in an equal quantity of water with the above, and mix them both together. To be taken while in a state of effervescence.

This is a very popular medicine, and justly so; it is a gentle aperient, and may be taken by persons whose stomachs would reject any of the ordinary saline preparations.

Soda Powders.

℞. Sodæ Bicarbonatis, ℥ss.
Signa.—To be dissolved in a wineglassful of cold water.

℞. Acidi Tartarici, gr. xxv.
Signa.—Dissolve in the same quantity of sweetened water, flavored with two drops of essence of lemon.

Mix the two solutions, and drink in a state of effervescence. These effervescing drinks, in addition to their laxative effects, allay thirst, check sickness of stomach, and diminish febrile heat.

Stevens's Saline Powders.

℞. Sodæ Bicarbonatis, ʒss.
Sodii Chloridi, ϑj.
Potassæ Chloratis, gr. vij.
Misce.

This powder was administered by Dr. Stevens in half a tumbler of tepid water, or a little thin beef tea, in cholera, and repeated every half hour until the patient recovered from the collapse.

PURGATIVE PILLS.

Griffitts's Cathartic Pills.

℞. Pulveris Jalapæ,
——— Rhei,
Saponis, āā ʒss.
Hydrargyri Chloridi Mitis, gr. xxv.
Antimonii et Potassæ Tartratis, gr. jss.
Aquæ destillatæ, quantum sufficit ut fiat massa. Divide in pilulas xxv.
Signa.—Two of these pills may be taken at once, and repeated in two hours, if not sufficient.

This combination of purgatives with the tartrate of antimony, forms an excellent antibilious remedy; and, in cases of fever, prepares the alimentary canal for the reception of other remedies.

Pills of Blue Mass, Aloes, &c.

℞. Pilulæ Hydrargyri,
Pulveris Jalapæ,
——— Aloës, āā gr. xv.
Syrupi, q. s. ut fiat massa. Divide in pilulas xij.
Signa.—Three may be taken at night, and the same dose repeated in the morning, if the first is ineffectual.

Pills of Blue Mass, Soda, &c.

℞. Pilulæ Hydrargyri, gr. ix.
Pulveris Rhei,
Sodæ Bicarbonatis, āā gr. xij.
Syrupi Rhei Aromatici, q. s. ut fiat massa, in pilulas xij. dividenda.
Signa.—One, twice or three times a day, as an alterative, in derangement of the liver. DR. HARTSHORNE.

Pills of Blue Mass, and Colocynth.

℞. Pilulæ Hydrargyri,
Extracti Colocynthidis Compositi, āā gr. v.
Olei Cari, gtt. ij.
Misce, et fiant pilulæ ij.

These constitute an active cathartic.

Pills of Calomel and Colocynth.

℞. Extracti Colocynthidis Compositi, gr. xlviij.
Hydrargyri Chloridi Mitis, ℈j.
Misce, et divide in pilulas xx.
Signa.—Two or three of these pills will generally act as a cathartic.

Pills of Extract of May-Apple and Podophyllin.

℞. Extracti Podophylli, ℥ss.
Podophyllin (*Merrill, Parrish*), gr. x.
Misce, et fiat massa in pilulas x. dividenda.
Signa.—Give one pill every three hours.

Podophyllin is a composite principle, lately reintroduced into notice by W. S. Merrill, of Cincinnati, and Edward Parrish, of Philadelphia. It is spoken of as a chologogue cathartic. It certainly does operate promptly, and sometimes harshly on the bowels, in the dose of one or two grains. EDITOR.

Anti-Gout Pill.

℞. Extracti Colchici Acetici,
——— Colocynthidis Compositi, āā gr. x.
Morphiæ Muriatis, gr. ijss.
Misce, et fiat massa in pilulas x. dividenda.

This is a useful anti-gout pill; one adapted to mitigate an actual paroxysm. One pill should be given every two hours, until the bowels and kidneys are acted on. ROBERT DICK.

Pills with Extract of Butternut and Jalap.

℞. Extracti Juglandis, ʒss.
Pulveris Jalapæ, ℈j.
Saponis, gr. x.
Misce, et fiant pilulæ xv.
Signa.—Three or four of these may be taken for a dose, and if they do not operate, two or more may be safely administered.

The extract of butternut, either alone or in combination, is highly recommended as a cathartic in fevers, dysentery, &c.

Pills of Compound Extract of Colocynth, &c., commonly called Fothergill's Pills.

℞. Extracti Colocynthidis Compositi, ʒiss.
Antimonii Oxidi, *Ed.* ʒss.
Misce, et divide in pilulas xxx.—One of these pills will generally produce a free evacuation; but two or more may be taken when required.

Pills of Compound Extract of Colocynth, &c.

℞. Extracti Colocynthidis Compositi, ℈j.
Resinæ Jalapæ, *Ed.* gr. vj.
Pulveris Scammonii Compositi, *Lond.* gr. x.
Hydrargyri Chloridi Mitis, gr. x.
Antimonii et Potassæ Tartratis, gr. j.
Saponis, gr. v.
Olei Cinnamomi, gtt. iv.
Misce, et divide in pilulas xv.
Signa.—One, two, or three to be taken at bedtime.

Dr. Meigs.

Mitchell's Pills.

℞. Pulveris Rhei, ℈iv.
——— Aloës, ℈ij.
Hydrargyri Chloridi Mitis, gr. iv.
Antimonii et Potassæ Tartratis, gr. ij.
Fiat pulvis, et adde—
Saponis, in pulverem, ℈ij.
Aquæ, q. s. ut fiat massa. Divide in pilulas xl.
Signa.—Take one pill every night as a laxative, or three pills as a purgative.

J. K. Mitchell.

Pills of Elaterium.

℞. Elaterii, gr. ij.
Extracti Gentianæ, ʒss.
Misce, et divide in pilulas xvj.
Signa.—Give one pill every three hours, until free purging takes place. Elaterin, the active principle of this drug, can now be procured in a state of purity; and as it is more certain in its effects, a formula is subjoined under the head of purgative wines and tinctures.

Pills of Croton Oil.

℞. Olei Tiglii, gtt. ij.
Micæ Panis, q. s. ut fiant pilulæ iv.
Signa.—One every hour until they operate.

This powerful remedy has lately been restored to the materia medica. One drop is a full dose, and frequently less will answer every purpose.

The following is a more certain and less drastic mode of exhibiting Croton Oil.

Pills of Croton Oil and Colocynth.

℞. Olei Tiglii, gtt. ij.
Extracti Colocynthidis Compositi, gr. xij.
Misce, et divide in pilulas iv.
Signa.—Give one pill every two hours.

Another Form.

℞. Extracti Colocynthidis Compositi, gr. l.
Saponis, gr. x.
Olei Tiglii, gtt. ij.
Misce, fiat massa in pilulas, xij. dividenda.
Signa.—Take one pill occasionally. BRODIE.

Antibilious Pills.

℞. Pilulæ Catharticæ Compositæ, No. iij.

One pill often acts as a laxative, and three as a purgative. Each pill contains one grain of calomel.

Peristaltic Persuaders.

℞. Pulveris Rhei, ʒj.
——— Ipecacuanhæ, gr. x.
Olei Cari, gtt. x.
Pulveris Acaciæ, q. s.
Fiat massa, et divide in pilulas xx.
Signa.—Take two pills at bedtime, in obstinate constipation.

Dr. Chapman also highly recommends the use of ten drops of the wine of colchicum root, every four hours, in the same complaint. CHAPMAN.

VARIOUS ALOETIC PILLS.

Pills of Aloes with Soap.

℞. Pilulæ Aloës, No. v.

Each pill contains two grains of aloes.

Pills of Aloes and Assafetida.

℞. Pilulæ Aloës et Assafœtidæ, No. iij.

Each pill contains one and a third grains of the respective ingredients.

Rufus's Pills.

℞. Pilulæ Aloës et Myrrhæ, No. iij.

Each pill contains two grains of aloes, one of myrrh, and half a grain of saffron.

Pills of Rhubarb, Aloes, and Myrrh.

℞. Pilulæ Rhei Compositæ, No. iij.

Each pill contains two grains of rhubarb, one and a half grains of aloes, and one grain of myrrh.

Aperient Pills.

℞. Pulveris Aloës,
——— Rhei, āā ℥j.
——— Ipecacuanhæ, gr. vj.
Saponis, ℈j.
Aquæ, q. s.
Fiant pilulæ lx.

As a simple aperient, one may be taken every night at bed-time; but where a full purgative effect is desirable, the dose is two or three.

Pills with Aloes, Gentian, &c.

℞. Pulveris Aloës, ℥j.
Extracti Gentianæ, ℥ss.
Olei Cari, gtt. x.
Syrupi, q. s. ut fiat massa, in pilulas singulas grana quatuor pendentes, dividenda.
Signa.—Take two or three pills for a dose.

Pills with Aloes, Guaiacum, &c.

℞. Pulveris Guaiaci, ʒj.
——— Aloës, gr. xxxvj.
——— Rhei, ʒij.
Terebinthinæ Canadensis, quantum sufficit ut fiat massa in pilulas xlviij. dividenda.
Signa.—One to be taken every three hours.

This combination forms a highly stimulating cathartic.

Hooper's, Anderson's, Webster's, and Morrison's Pills, which enjoy so high a reputation with the public, depend in a great measure for their efficacy on the presence of aloes.

Pills of Rhubarb and Sulphate of Iron.

℞. Pulveris Rhei, ʒiss.
Ferri Sulphatis, ʒss.
Saponis, ℈ij.
Aquæ destillatæ, q. s. ut fiat massa in pilulas xl. dividenda.

The intention of these pills is obviously to remove costiveness, and impart tone to the bowels. They were a favorite medicine with Dr. Griffitts, late of this city. Three or four may be taken for a dose at bedtime.

Pills of Ox Gall.

℞. Fellis Bovini inspissati, ʒij.
Olei Cari, gtt. x.
Magnesiæ Carbonatis, q. s. ut fiat massa, in pilulas xxxvj. dividenda.
Signa.—Take two pills three times daily. CLAY.

Ox gall has again been brought forward as a remedy in dyspepsia and obstinate constipation. Its advocates claim for it certainty of action, attended with little pain or griping.

PURGATIVE CONFECTIONS AND ELECTUARIES.

Lenitive Electuary.

℞. Confectionis Sennæ, ʒj.
Signa.—Take a piece the size of a marble, night and morning, in costiveness.

Confection of Sulphur.

℞. Sulphuris loti, ℥iss.
Confectionis Sennæ, ℥ij.
Potassæ Nitratis, ℥j.
Syrupi Aurantii Corticis, q. s. ut fiat confectio.
Signa.—One or two drams may be taken once or twice a day. In hemorrhoidal affections.

Electuary of Senna and Figs.

℞. Pulveris Sennæ, ℥ss.
Pulpæ Ficûs, quantum sufficit ut fiat electuarium.
Signa.—A piece the size of a marble, night and morning, in costiveness.

Electuary with Jalap, Nitrate of Potash, &c.

℞. Pulveris Jalapæ,
Potassæ Bitartratis,
——— Nitratis, āā ℥ss.
Confectionis Sennæ, ℥j.
Syrupi, q. s. ut fiat electuarium. Of which a bolus the size of a hazel-nut may be taken three or four times a day.

This preparation once gained considerable celebrity as a popular remedy for hemorrhoids.

Confection of Sulphur, Guaiac, &c.

℞. Sulphuris, ℥ij.
Potassæ Bitartratis, ℥j.
Pulveris Guaiaci, ʒj.
——— Rhei, ʒij.
Spiritûs Myristicæ, f℥ij.
Mellis, quantum sufficit, ut fiat electuarium.
Signa.—Take one or two teaspoonfuls morning and evening.

This preparation has long been used successfully in England in the treatment of chronic rheumatism.

PURGATIVE EMULSIONS.

Oleaginous Mixture.

℞. Pulveris Acaciæ, ʒiij.
Aquæ, f℥ij.
Olei Ricini, ℥j.
Aquæ Cinnamomi, vel
——— Menthæ Viridis, f℥j.
Misce secundum artem.
Signa.—Take a tablespoonful every two hours.

Sugar is generally prescribed, but the mixture remains more uniform without it. The compounder should mix the gum arabic with sufficient water to form a thick mucilage, and then rub in small portions of the oil and water until the whole is suspended. Finally, add the cinnamon or mint-water, and shake well together.

Another Form for Children.

℞. Olei Ricini, ʒij. vel ℥ss.
Vitellum Unius Ovi,
Aquæ Fœniculi,
——— Menthæ Viridis, āā f℥j.
Fiat emulsio. *Signa.*—Give a teaspoonful morning and night to a child three months old.

Another Form.

℞. Mucilaginis Acaciæ, f℥j.
Olei Ricini, ℥j.
Aquæ Menthæ Viridis, f℥ij.
Mix the oil and mucilage, add the mint-water, and shake well together.
Signa.—Take a tablespoonful every two hours.

Mixture of Oil of Turpentine.

℞. Olei Terebinthinæ, f℥j.
Pulveris Acaciæ, ʒiij.
Aquæ Menthæ Viridis, f℥iv.
Misce. *Signa.*—A tablespoonful every two hours until it operates.

This preparation must be made in the same manner as the oleaginous mixture.

Mixture of Oil of Turpentine.

℞. Olei Terebinthinæ, f℥j.
Vitellum Unius Ovi,
Tere simul, et adde gradatim—
Misturæ Amygdalæ, f℥iv.
Syrupi Aurantii Corticis, f℥ij.
Spiritûs Lavandulæ Compositi, f℥jss.
Olei Cinnamomi, gtt. iv.
Misce, et fiat emulsio. *Signa.*—Take a tablespoonful every two hours.

Oleaginous Mixture with Oil of Turpentine.

℞. Olei Ricini, f℥iss.
Vitellum Ovi, j.
Sacchari, ℥ij.
Olei Terebinthinæ, f℥ss.
Aquæ Menthæ Viridis, f℥iv.
Misce optime. *Signa.*—A large tablespoonful may be taken every hour or two, according to circumstances.

This preparation is much used by some of our best practitioners in cases requiring a brisk and stimulating cathartic. It has also been recommended as a purgative after the effects of an overdose of opium have been partially subdued by preliminary remedies.

Mixture of Croton Oil.

℞. Olei Tiglii, gtt. j. vel ij.
Mucilaginis Acaciæ,
Aquæ destillatæ, āā f℥j.
Misce. *Signa.*—To take a teaspoonful every two hours until it operates.

Saponaceous Solution of Croton Oil.

℞. Olei Tiglii, gtt. viij.
Potassæ, gr. vj.
Aquæ destillatæ, f℥ij.
Fiat solutio. *Signa.*—From three to six drops may be given for a dose.

This is a substitute for the soap of croton oil proposed by the French, which is more troublesome to make.

Mr. Conwel states that four drops of this oil rubbed on and round the umbilicus, will produce a cathartic effect; even the odor of it has been known to excite the alimentary canal, either as an emetic or purgative.

PURGATIVE MIXTURES.

Solution of Sulphate of Magnesia, and Tartar Emetic.

℞. Magnesiæ Sulphatis, ℥j.
Antimonii et Potassæ Tartratis, gr. ss.
Aquæ destillatæ, f℥iij.
Succi Limonis recentis, f℥j.
Misce, et fiat solutio.—A tablespoonful to be given every two hours until it operates. Or one-half may be taken as a purgative dose.

Solution of Epsom Salts with Nitric Acid.

℞. Magnesiæ Sulphatis, ℥ss.
Tincturæ Jalapæ, f℥j.
Acidi Nitrici, gtt. ij.
Aquæ Menthæ Viridis, f℥ij.
Misce. *Signa.*—To be taken for a draught. The nitric acid is said to destroy in a great measure the bitter taste of the salt.

Mixture of Carbonate of Magnesia, &c.

℞. Magnesiæ Carbonatis, ℥ss.
——— Sulphatis, ℥iij.
Spiritûs Ammoniæ Aromatici, f℥j.
Tincturæ Rhei, f℥ss.
——— Hyoscyami, f℥ss.
Aquæ Menthæ Viridis, f℥iv.
Fiat mistura. *Signa.*—A large tablespoonful to be taken two or three times a day. Dr. Meigs.

Mixture of Magnesia and Rhubarb.

℞. Magnesiæ, ℥ss.
Pulveris Rhei, gr. ij.
Sacchari, ℥j.
Tincturæ Olei Menthæ Piperitæ, gtt. vj.
Aquæ destillatæ, f℥iss.
Fiat mistura. *Signa.*—A teaspoonful to be given every two hours to children, until it operates.

This preparation is designed for the bowel complaints of children, in which it is very serviceable. Laudanum can be added according to the age and condition of the patient.

Magnesia and Blue Pill.

℞. Magnesiæ, ℥iss.
Acaciæ,
Sacchari, āā q. s.
Aquæ, f℥iv.
Pilulæ Hydrargyri, gr. iv. vel viij.
Olei Anisi, gtt. iv.
Misce. *Signa.*—To take a tablespoonful every two hours until it operates freely. An alterative cathartic.

Magnesia and Colchicum.

℞. Magnesiæ, ℥j.
Sacchari,
Acaciæ, āā q. s.
Aquæ destillatæ, f℥iv.
Vini Colchici Radicis, gtt. xl.
Fiat mistura. *Signa.*—To take a tablespoonful every two hours until it operates.

This preparation is much used in gouty and rheumatic affections. Laudanum can be added if requisite.

Scudamore's Mixture of Colchicum and Epsom Salts.

℞. Magnesiæ, ℈iv.
Magnesiæ Sulphatis, ℥j.
Aquæ Menthæ Viridis, f℥v.
Aceti Colchici, f℥ss.
Syrupi, f℥j.
Fiat mistura.—Dose, one, two, or three tablespoonfuls, repeated every two hours, until four or six evacuations are produced in twenty-four hours. Chiefly used in gouty paroxysms.

Solution of Sulphate of Veratria.

℞. Veratriæ Sulphatis, gr. j.
Aquæ destillatæ, f℥ij.
Fiat solutio. Dose, a dessertspoonful. This solution is said to be a good substitute for the Eau Medicinale of Husson, in gouty affections. MAGENDIE.

Solution of Citrate of Magnesia.

℞. Liquoris Magnesiæ Citratis, f℥xij.
Signa.—Take one-half at a draught, and repeat in two hours, if necessary.

From its resemblance to lemonade in taste, this constitutes one of the most pleasant laxatives now in use. A child five years old, may take a wineglassful as a dose.

The country practitioner can make a good approximation by neutralizing carbonate of magnesia with citric acid, in the proportion of fourteen parts of the former to twenty parts of the latter, and flavoring the solution with lemon sirup.

Half an ounce of the neutral salt of citrate of magnesia constitutes a dose.

Fluid Extract of Senna.

℞. Extracti Sennæ Fluidi, f℥j.
Signa.—Give a tablespoonful. CHARLES ELLIS.

The fluid extracts, of which a few are officinal, are intended to combine strength, smallness of dose, facility of administration, and permanency, in one preparation. They have become quite popular with the profession in most of the large cities, and hence there is an obvious propriety in making them officinal.

The fluid extract of senna is a safe, and tolerably certain purgative.

Fluid Extract of Rhubarb.

℞. Extracti Rhei Fluidi, f℥j.
Signa.—Give half a teaspoonful night and morning.

One fluidram of the extract represents one dram of rhubarb.

Sulphate of Potash and Jalap Mixture.

℞. Potassæ Sulphatis, ℥ij.
Aquæ, f℥vss.
Tincturæ Jalapæ, f℥ss.
Fiat solutio. *Signa.*—Take a tablespoonful every two hours; a mild purgative, and deobstruent.

PURGATIVE INFUSIONS AND DECOCTIONS.

Infusion of Senna, Sulphate of Magnesia, &c.

℞. Sennæ, ℥ss.
Mannæ optimæ,
Magnesiæ Sulphatis, āā ℥j.
Cardamomi, ℥ij.
Misce. *Signa.*—To be infused in a pint of boiling water until cold, and half a teacupful given every hour until it operates.

Infusion and Tincture of Senna, Salts, &c.

℞. Infusi Sennæ, f℥vj.
Tincturæ Sennæ, f℥ij.
Mannæ, ℥ij.
Magnesiæ Sulphatis, ℥ss.
Aquæ Menthæ Viridis,
—— destillatæ, āā f℥iss.
Misce. *Signa.*—One-half to be taken for a dose, and repeated if it does not operate. This was a very common prescription of the late Mr. Abernethy, of London.

Infusion of Senna and Manna.

℞. Sennæ, ʒvj.
Mannæ, ℥j.
Cardamomi, ʒij.
Misce. *Signa.*—To be infused in a pint of boiling water until cold; one-half to be taken at once; and if insufficient, the remainder in two or three hours.

This infusion will keep longer if a little tincture of senna be added to it.

Decoction of Prunes and Senna.

℞. Pruni, ℥iij.
Infusi Sennæ, Oiij.
Decoque ad libras duas.

In making this decoction, the coriander seed directed in the officinal infusion of senna, had better be omitted until near the close of the process. This forms a good laxative for pregnant women.

Infusion of Senna with Rhubarb, &c.

℞. Sennæ, ʒvj.
Mannæ, ℥j.
Rhei contusi, ʒij.
Cardamomi, ʒij.
Misce. *Signa.*—To be infused in a pint of boiling water for one hour. Half a teacupful given every hour till it operates.

Decoction of Aloes, &c.

℞. Extracti Glycyrrhizæ, ℥ss.
Potassæ Carbonatis, ℈ij.
Aloës,
Myrrhæ contritæ,
Croci, } āā ʒj.
Tincturæ Cardamomi Compositæ, f℥iv.
Aquæ destillatæ, Oj.
Boil down all the ingredients, except the last, with the water to twelve fluidounces, and strain; then add the compound tincture of cardamom. The dose of this decoction is from half an ounce to an ounce and a half. It is a mild, warm cathartic.

PURGATIVE WINES AND TINCTURES.

Wine of Colchicum Root.

℞. Vini Colchici Radicis, f ℥ss.

Signa.—Ten or twenty drops of this may be taken in sugar and water, morning, noon, and night. The preparations of colchicum not unfrequently produce violent vomiting, and require to be continued with great caution. Used in rheumatism and gout.

There are two vinous preparations of colchicum, the wine of the root or corm, which is a saturated one given as above, and the wine of the seeds, which is only about half as strong, and may be given in the dose of a teaspoonful. The two should be carefully designated in prescriptions by their respective terminations, "Radicis," and "Seminis."

Tincture of Veratria.

℞. Veratriæ, gr. iv.
Alcoholis, f ℥j.

Fiat tinctura.—This may be given in doses of ten, fifteen, or twenty drops, in a wineglass of water. It is designed as a substitute for the Vinous Tincture of Colchicum, in dropsies, gout, rheumatism, &c.

The Tincture of Veratria is recommended as an external application in the diseases above mentioned. For this purpose also the ointment is proposed.

Veratria is extremely poisonous, and, therefore, to be taken with great caution.

Tincture of Elaterin.

℞. Elaterin, gr. j.
Alcoholis, f ℥j.

Solve, dein adde—
Acidi Nitrici, gtt. iv.

Misce. *Signa.*—Dose, twenty to forty drops in cinnamon water.

MORRIS.

Tincture of Croton Oil.

℞. Olei Tiglii, gtt. iv.
Tincturæ Myrrhæ, f ℥j.

Misce, digere, et cola.

Signa.—Dose, one teaspoonful. BATEMAN.

Tincture of Aloes, &c.

℞. Pulveris Aloës,
——— Anisi, āā ℥ij.
Spiritus Vini Gallici, Oij.
Fiat tinctura.—Dose, from one-third to half a wineglassful, three times a day.

The above is highly spoken of by Dr. R. Pindall in hemorrhoidal affections. He considers it almost a specific, notwithstanding the prejudice against aloes in these affections of the rectum.

ENEMATA.

Enemata, used either as auxiliaries to, or substitutes for cathartics, very properly succeed that class of remedies.

They are employed to fulfil other indications, and the different preparations will be noticed under their appropriate heads. It is usual to direct three times the quantity of the medicine to be given for an enema that is required for a dose by the mouth. For the purpose of procuring a discharge from the bowels, this rule may generally be observed; but in some of the powerful remedies occasionally administered, as opium and tobacco, it might be attended with serious consequences. When using these active drugs, it is better to give only double the quantity.

The bulk of the enema also varies according to the object we have in view. If purgation is to be effected, the subjoined proportions afford a good rule; but if the remedial agent is to be retained for some time, a small amount is obviously indicated, lest the mere bulk of the injection cause an immediate discharge.

The following are the proportions recommended by Professor Chapman in the ordinary enemata for persons of different ages: A child between the ages of one and five years, from f ℥iv. to f ℥vj. A youth of ten or fifteen years, half a pint; and an adult, from a pint to a quart, according to circumstances.

In all cases, a warm folded towel should be firmly pressed against the anus for fifteen minutes after the injection is thrown up.

Common Enema.

℞. Olei Ricini, vel Olivæ, f ℥ij.
Sacchari Fæcis, f ℥ij.
Sodii Chloridi, ℥i. vel ℥ij.
[1] Infusi Lini tepidi, Oj.

Fiat enema.—One-half to be administered at once, and the remainder in half an hour or an hour if the first produces no evacuation. The chloride of sodium is an active ingredient. In fact, there is no better enema than simple salt and water at the ordinary temperature; and sea-water fresh from the ocean answers the same purpose.

Soap Enema.

℞. Saponis Vulgaris incisi, vel
——— Mollis, *Lond.* ℥j.
Infusi Lini tepidi, Oj.

Misce pro enemăte.

This is an effectual clyster in cases of flatulence and impacted feces.

Ox Gall Enema.

℞. Fellis Bovini spissati, ℥j.—ij.
Vel
Fellis Bovini recentis, f℥j.
Aquæ tepidæ, Oj.

Misce. *Signa.*—Use for an injection, in cases of obstinate constipation and hardened feces.

Enema with Sulphate of Magnesia, &c.

℞. Magnesiæ vel Sodæ Sulphatis, ℥ij.
Olei Olivæ, f℥j.
Aquæ tepidæ, Oj.

Fiat enema. *Signa.*—To be used as an injection.

Enema of Colocynth and Manna.

℞. Colocynthidis Medullæ incisæ, ℥j.
Mannæ, ℥j.
Aquæ bullientis, f℥x.
Sodii Chloridi, ℥ss.

Boil the Colocynth and Manna in the water for ten or fifteen

[1] The officinal infusion of flaxseed is a compound one, containing liquorice root, and is chiefly intended for affections of the lungs and urinary passages. But the article alluded to in this formula, and elsewhere throughout the book, is the common flaxseed tea, made by infusing an ounce of the seeds in a pint of boiling water.

minutes and strain; then add the salt. Employed in obstinate constipation.

Enema of Oil of Turpentine.

℞. Olei Terebinthinæ, f℥jss.
Vitellum Unius Ovi,
Infusi Lini tepidi, Oj.
Misce.

Venice turpentine may be substituted for the oil directed in this prescription; and either of them, if required, may be given in larger quantities.

Enema of Infusion of Senna and Epsom Salts.

℞. Infusi Sennæ, Oj.
Magnesiæ Sulphatis, ℥ij.
Misce.—One-half to be exhibited as an enema, and the remainder if necessary.

Enema with Tartrate of Antimony.

℞. Antimonii et Potassæ Tartratis, ℈j.
Mucilaginis Acaciæ, f℥iv.
Aquæ tepidæ, f℥xij.
Misce.—Exhibit as the former.

Dr. Chapman recommends this preparation as one admirably calculated to overcome constipation which resists the ordinary remedies. It is very powerful, and requires great care in its management.

SUPPOSITORIES.

(From *Supponere*, to put under.)

Suppositories constitute a class of remedies that has hitherto been little used by American practitioners. They are solid, round, cylindrical, or conical in form, and intended for introduction into the anus. They are prepared by mingling sedative, astringent, or purgative medicines with cocoa-butter, suet, soap, or thick honey.

When made with suet, or cocoa-butter, these substances should be melted at a gentle heat, with an eighth or a twelfth of white wax, according to the season of the year. The medicinal agent is added, and the fluid mass poured into paper cones, to cool and become solid. A suppository should weigh one or two drams, and be as large as the end of the finger or thumb.

Purgative suppositories are often much larger. By the heat of the body, the suet or cocoa-butter is softened, and the remedial agent is thus permitted to develop its effects.

Soap suppositories are formed by cutting soap into convenient shapes. Suppositories with honey are prepared by boiling down this substance, till it becomes sufficiently thick to retain its shape when cool.

Laxative Suppository.

℞. Saponis, ℥ij.
Sodii Chloridi, ℥j.
Mellis spissati, q. s.
Misce.

Form into conical suppositories, weighing ℥ss., and oil them on the surface.

Suppository of Rhubarb.

℞. Saponis, ʒiij.
Extracti Rhei, ʒss.
Pulveris Rhei, q. s.
Misce, et fiant suppositoria iij.
Signa.—Use one suppository at bedtime.

Purgative Suppository.

℞. Pulveris Colocynthidis, ʒss.
Sodii Chloridi, ʒj.
Mellis spissati, ℥j. vel q. s.
Fiat suppositorium.

A large suppository of this kind, should be of a cylindrical form like a candle, to facilitate its introduction.

Formulæ, without number, of a purgative character, might be given, but the above are sufficient to show the usual modes of preparing them in France. Astringent, anthelmintic, and anodyne suppositories, are mentioned in other parts of this work, under their respective heads.

CLASS III.

DIURETICS.

The rules for the administration of this class of remedies are few and simple.

Where there is much arterial excitement, a judicious use of the lancet should precede the employment of diuretics, and the patient be kept cool to avoid perspiration.

In order to insure the full effect of diuretics, diluent drinks should be freely given, and especially those containing some diuretic medicine.

DIURETIC POWDERS.

Powder of Squill and Nitre.

℞. Pulveris Scillæ, gr. vj.
——— Potassæ Nitratis, ʒj.
Fiant pulveres vj. *Signa.*—One to be given thrice a day in sugar and water.

Some aromatic, such as cinnamon, may be added to this preparation if the stomach is irritable.

Powder of Uva Ursi and Soda.

℞. Pulveris Uvæ Ursi, ʒiss.
Sodæ Bicarbonatis, ʒj.
Misce, divide in chartulas xij. *Signa.*—One three times a day in sugar and water.

In nephritic complaints and affections of the bladder.

Powder of Ergot and Cubebs.

℞. Pulveris Ergotæ, ℈ij.
——— Cubebæ, ℥j.
——— Cinnamomi, ʒss.
Sacchari, ʒj.
Divide into eight powders, of which one may be given three or four times a day. In leucorrhœa and gleet. DR. RYAN.

Powder of Squill, Cream of Tartar, &c.

℞. Antimonii et Potassæ Tartratis, gr. ij.
Pulveris Scillæ, ʒij.
Potassæ Bitartratis, ℥jss.
——— Sulphatis, ℥ss.
Fiat pulvis, et divide in partes xx. equales.
Signa.—Take one powder four or five times daily.

This combination produces copious watery stools, together with a considerable flow of urine, properties that render it valuable in cases of general dropsy. EBERLE.

On theoretical grounds, the quantity of squill in this formula appears too large to begin with, each dose containing six grains. EDITOR.

DIURETIC PILLS.

Pills of Squill and Calomel.

℞. Hydrargyri Chloridi Mitis,
Pulveris Scillæ, āā gr. xij.
Confectionis Rosæ, q. s. ut fiant pilulæ xij. *Signa.*—One night and morning, in dropsies depending upon visceral derangement.

This preparation is one of the most celebrated of the diuretics, especially when disease of the liver is the cause of effusion. When the calomel affects the mouth it should be omitted, and the squill combined with some other diuretic.

Pills of Digitalis, Calomel, and Opium.

℞. Pulveris Digitalis, gr. xij.
Hydrargyri Chloridi Mitis, gr. vj.
Pulveris Opii, gr. iv.
Confectionis Rosæ, q. s.
Ut fiant pilulæ xij. *Signa.*—One to be taken every eight hours.

In hydrothorax and ascites.

Pills of Calomel, Digitalis, &c.

℞. Pulveris Scillæ exsiccatæ, gr. iv.
——— Myrrhæ, ℈j.
——— Digitalis, gr. x.
Hydrargyri Chloridi Mitis, gr. vj.
Simul tere et adde—
Assafœtidæ, ʒss.
Extracti Gentianæ, q. s.
Ut fiat massa, in pilulas xv. dividenda. *Signa.*—One night and morning. DR. PARIS.

Pills of Copaiba.

℞. Pilulæ Copaibæ, No. xx.
Signa.—Take two pills for a dose, four times daily.

Each pill contains about five grains of copaiba.

Turpentine Pills.

℞. Terebinthinæ, ʒj.
Divide in pilulas xv. *Signa.*—One four or five times a day.

Pills of Extract of Dandelion and Blue Mass.

℞. Extracti Taraxaci, ʒss.
Pilulæ Hydrargyri, gr. x.
Pulveris Uvæ Ursi, q. s.
Ut fiant pilulæ x. *Signa.*—One to be taken morning, noon, and night. In dropsy complicated with disease of the liver.

Pills of Digitalis, Squill, and Juniper.

℞. Pulveris Digitalis, ℈j.
——— Scillæ, ʒss.
Extracti Gentianæ, ℈j.
Olei Juniperi, gtt. viij.
Syrupi, q. s.
Ut fiat massa, in pilulas xij. dividenda.
Signa.—Take one pill three times daily.

Used in dropsy. PEARSON.

Pills of Digitalis, Squill, and Blue Mass.

℞. Pulveris Digitalis, gr. v.
——— Scillæ, gr. x.
Pilulæ Hydrargyri, ʒss.
Syrupi Acaciæ, q. s.
Fiat massa, et divide in pilulas x.
Signa.—Take one pill three times daily.

This combination was highly recommended by the late Dr. Baillie of London, as an alterative and diuretic in anasarca.

BAILLIE.

DIURETIC INFUSIONS AND DECOCTIONS.

Infusion of Digitalis.

℞. Digitalis, ʒj.
Aquæ bullientis, Oss.

Macerate for three hours, then strain.—Dose, for an adult, half a tablespoonful two or three times a day.

The prostrating effect of digitalis should always be kept in mind by the practitioner; and the rule that when it acts upon the *stomach*, the *bowels*, the *pulse* or the *kidneys*, it should be discontinued, cannot, when we consider the power of the article, be too scrupulously observed.

Infusion of Juniper Berries, and Cream of Tartar.

℞. Juniperi contusi, ℥jss.
Aquæ bullientis, Oj.

Macera per horas duas, in vase leviter clauso, et cola. Dein adde—
Potassæ Bitartratis, ℥j.
Misce. *Signa.*—Be careful to shake the bottle well before using. Of this, a teacupful may be taken four or six times a day; adding to each 40 drops of the sweet spirits of nitre. In general and local dropsy.

Infusion of Parsley Root.

℞. Petroselini, ℥j.
Aquæ bullientis, Oj.
Fiat infusum et cola. A teacupful may be taken with a teaspoonful of sweet spirits of nitre, every three or four hours.

A popular and very useful remedy for strangury, arising from blisters.

Infusion of Scabious or Fleabane.

℞. Erigerontis Canadensis, ℥j.
Aquæ bullientis, Oj.
Misce.—Pour on the water boiling hot, and infuse all night. A pint of the tea should be taken daily. Nitre or any other diuretic may be added. Prescribed in calculous and nephritic affections, in strangury, irritable bladder, &c.

Infusion of Uva Ursi.

℞. Uvæ Ursi, ℥j.
Aquæ bullientis, Oj.
Pour the water boiling hot on the leaves, and let them macerate for twelve hours. To be taken cold, from half a pint to a pint, daily. Chiefly used in gonorrhœa and irritable bladder.

Infusion of Dandelion, &c.

℞. Infusi Taraxaci, f℥iv.
Extracti Taraxaci, ℥ij.
Sodæ Carbonatis, ℥ss.
Potassæ Tartratis, ℥iij.
Tincturæ Rhei, f℥iij.
————Hyoscyami, gtt. xx.
Fiat mistura. *Signa.*—One third part to be taken three times a day. In dropsical and visceral affections. Dr. Meigs.

Decoction of Pipsissewa.

℞. Chimaphilæ, ℥j.
Aquæ, Oij.
Macerate for twelve hours, and then gradually boil down to one-half. Dose, a wineglassful three or four times a day. In dropsy.

Spirituous Decoction of Pipsissewa.

℞. Chimaphilæ, ℥ij.
Aquæ, f℥xij.
Evaporate by heat to ℥vj., and then add two ounces of gin. Dose, a dessertspoonful every two or three hours, with diluent drinks. In dropsy accompanied by debility.

Decoction of Cainca.

℞. Radicis Caincæ, ℥j.
Aquæ, Oij.
To be gradually reduced by heat to one-half. Dose, a tablespoonful three times a day. In dropsy.

This root is derived from the *Chiococca Anguifuga*, a Brazilian plant, which has of late been extensively and efficaciously employed in Europe. It occasions watery evacuations and diuresis, whence its use in dropsy.—Dunglison, *New Remedies*, p. 148.

Decoction of Indian Hemp.

℞. Apocyni Cannabini, ℥ss.
Aquæ, Ojss.
Coque ad Oj. et cola. GRISCOM.

Signa.—Take a wineglassful three times a day. This has been found useful in dropsy, acting as a hydragogue cathartic.

The young practitioner must carefully distinguish between preparations of the native drug under consideration (*Apocynum Cannabinum*), and the powerful, imported extract of *Cannabis Sativa;* as, unfortunately, they both bear the same trivial name of *Indian Hemp.*

Decoction of Pareira Brava Root.

℞. Pareiræ contusæ, ℥ss.
Aquæ bullientis, Oiij.
Boil by gentle simmering down to a pint.
Signa.—Take a wineglassful every two hours.

It has a great influence over chronic inflammation of the bladder, lessening very materially the secretion of the ropy mucus, which is itself a very great evil, and, I believe, diminishing the inflammation and irritability of the bladder also.

SIR B. BRODIE.

DIURETIC SOLUTIONS AND MIXTURES.

Solution of Digitalin.

℞. Digitalinæ, gr. ij.
Alcoholis diluti, f℥j.
Fiat solutio. *Signa.*—Take ten drops in sweetened water, three times daily.

Ten drops of this solution, are equivalent to one-fiftieth of a grain of digitalin, and consequently, the dose may be gradually increased until the peculiar effects of digitalis are developed.

Cider Mixture.

℞. Juniperi contusi,
Sinapis,
Zingiberis, āā ℥ss.
Armoraciæ contusæ,
Petroselini, āā ℥j.
Succi fermenti pomorum, Oij.
Fiat infusum.—Of which a wineglassful may be taken three or four times a day.

The above compound was recommended by the late Dr. Parrish, in cases of general dropsy which admit of stimulation, and in which the urinary secretion is deficient. The cider should be old and sound.

Mixture with Oil of Juniper.

℞. Olei Juniperi, gtt. xxv.
Sacchari,
Acaciæ, āā ʒij.
Aquæ destillatæ, fʒiv.
Misce. *Signa.*—A tablespoonful to be taken every two hours.

Mixture with Juniper, Squill, &c.

℞. Potassæ Acetatis, ʒv.
——— Bicarbonatis, ʒj.
Aquæ, fʒxij.
Tincturæ Scillæ, fʒj.
Spiritûs Juniperi Compositi, fʒj.
Fiat mistura. *Signa.*—Take two tablespoonfuls three times a day. BROWN.

Mixture of Digitalis, Acetate of Potash, &c.

℞. Infusi Digitalis, fʒiv.
Potassæ Acetatis, ʒij.
Spiritûs Ætheris Nitrici, fʒij.
Aquæ Cinnamomi, fʒjss.
Fiat mistura. *Signa.*—Take a tablespoonful every four hours.

Recommended in the treatment of cardiac disease.
KILGOUR.

Mixture of Digitalis, Potash, &c.

℞. Infusi Digitalis, fʒiv.
Tincturæ Digitalis, fʒi.
Potassæ Acetatis, ʒj.
Tincturæ Opii, gtt. x.
Fiat mistura. *Signa.*—Half a tablespoonful three or four times a day.

Mixture with Tincture of Cantharides, &c.

℞. Tincturæ Cantharidis,
Spiritûs Ætheris Nitrici, āā gtt. lx.
Sacchari, ʒj.
Aquæ Menthæ Viridis, fʒij.
Fiat mistura. *Signa.*—A teaspoonful may be taken every three or four hours, desisting if strangury should supervene.

Mixture of Spirits of Turpentine.

℞. Olei Terebinthinæ, gtt. c.
Pulveris Acaciæ,
——— Sacchari, āā ʒj.
Aquæ Menthæ Viridis, fʒiv.
Fiat mistura. *Signa.*—A tablespoonful four or five times a day, aided by some diuretic drink.

This remedy is used with great benefit in nephritic complaints, and especially in the passage of calculi through the ureters.

Mixture of Elaterium, Colchicum, &c.

℞. Elaterii, gr. j.
Spiritûs Ætheris Nitrici, fʒij.
Tincturæ Scillæ, fʒss.
Aceti Colchici, fʒij.
Syrupi, fʒj.
Fiat mistura. *Signa.*—To take a teaspoonful three or four times a day in a little water.

Dr. Ferriar recommends the above in the several forms of dropsy, and more especially in hydrothorax.

Mixture of Colchicum, Squill, and Tobacco.

℞. Oxymellis Colchici, *Dub.*
——— Scillæ,
Vini Tabaci, āā fʒss.
Misce. Take a small teaspoonful in a little water four times a day.

If requisite, the *spiritus ætheris nitrici* may be added in the same quantity. This forms the *diuretic drops* of Dr. Ferriar, and requires to be given with great circumspection.

Hydragogue Draught of Dr. Ferriar.

℞. Gambogiæ, gr. iv.
Spiritûs Ætheris Nitrici, fʒj.
Tincturæ Sennæ, fʒij.
Syrupi Rhamni, *Ed.*
Aquæ Menthæ Viridis, āā fʒss.
Misce et fiat haustus.—Dr. Ferriar observes that, in some cases of hydrothorax attended with imminent danger of suffocation, he has afforded immediate relief by the above draught.

Tincture of Colchicum and Digitalis.

℞. Tincturæ Colchici Seminis,
———— Digitalis, āā f℥j.
Spiritûs Ætheris Nitrici, f℥j.
Misce. Dose, twenty drops on a lump of sugar. Given as a diuretic in dropsy and hydrothorax. HILDENBRAND.

Mixture of Carbonate of Potash, Squill, &c.

℞. Potassæ Carbonatis, ℥j.
Succi Limonis, q. s. ad saturandum,
Tincturæ Scillæ, f℥ss.
———— Opii, gtt. xxx.
Aquæ Cinnamomi, f℥iv.
Misce. *Signa.*—A tablespoonful every two or three hours throughout the day.

The vinegar or oxymel of squill, if preferred, may be substituted in this preparation. We use the tincture because it is more uniform, and less liable to spontaneous changes.

Mixture of the Acetates of Potash and Ammonia.

℞. Liquoris Ammoniæ Acetatis, f℥ij.
Potassæ Acetatis, ℥ij.
Misce. *Signa.*—A tablespoonful every three hours for a dose.

Mixture of Buchu and Acetate of Potash.

℞. Infusi Buchu, f℥viij.
Potassæ Acetatis, ℥ij.
Misce. *Signa.*—Take a wineglassful three or four times a day.

This is an excellent diuretic combination, and its value may be farther enhanced by the addition of sweet spirits of nitre.

Mixture with Urea.

℞. Ureæ, ℥j.
Aquæ, f℥ijss.
Syrupi Aurantii Corticis, f℥ss.
Fiat mistura. *Signa.*—Take a tablespoonful every six hours.

Its action as a diuretic should be aided by the free administration of diluents, as well as by keeping the skin moderately cool. The dose may be augmented to a scruple or more.
T. H. TANNER.

Hufeland's Diuretic Drops.

℞. Olei Juniperi, f℥ss.
Spiritûs Ætheris Nitrici,
Tincturæ Digitalis, āā f℥iij.
Misce. *Signa.*—Give twenty or thirty drops every three hours.

Use. This is one of the best diuretics, and may be employed for some time without offending the stomach.

HUFELAND.

Mixture of Buchu and Uva Ursi.

℞. Buchu,
Uvæ Ursi, āā ℥ss.
Aquæ ferventis, Oss.
Digere leni calore in vase clauso per dimidiam horam.
Cola, et adde—
Syrupi Senegæ, f℥ss.
Signa.—Take one or two tablespoonfuls every two hours.

Used in blennorrhœa, atony, and paralysis of the bladder.

CLARUS.

Mixture of Balsam Copaiba.

℞. Copaibæ,
Spiritûs Ætheris Nitrici, āā f℥ss.
Pulveris Acaciæ, ℥ij.
——— Sacchari, ℥j.
Aquæ destillatæ, f℥iv.
Spiritûs Lavandulæ Compositi, f℥ij.
Tincturæ Opii, f℥j.
Fiat mistura secundum artem. *Signa.*—A tablespoonful three times a day.

CHAPMAN.

This remedy is more especially used in gonorrhœa, and is considered by Professor Chapman as a specific in that disease. A preferable mode of exhibiting balsam copaiva, consists in dropping the quantity prescribed for a dose in a wineglass of water, and then adding to it a small quantity of the *tinct. gentianæ comp.* The balsam collects into a globule and is surrounded by the tincture, which, leaving its taste in the mouth, covers that of the nauseous balsam.

Mixture of Balsam Copaiba, Cubebs, &c.

℞. Copaibæ,
Pulveris Cubebæ, āā ℥ss.
Acaciæ, ℥ij.
Sacchari, ℥ij.
Aquæ, f℥viij.
Tincturæ Opii Camphoratæ, f℥ss.
Misce secundum artem. *Signa.*—A tablespoonful every three hours.

We have found this remedy, in some obstinate cases of gonorrhœa, more efficacious than the preceding formula. The tincture of cubebs may be substituted for the powder—and the tinct. opii acetat. f℥j. for the paregoric, if desirable. Balsam copaiva is sometimes given by the French physicians in the form of enema, for the cure of gonorrhœa. Capsules containing it are also in common use. S. G. Morton.

Another Form.

℞. Copaibæ, f℥jss.
Mucilaginis Acaciæ, f℥v.
Olei Limonis, gtt. vj.
Tincturæ Cubebæ, f℥j.
Spiritûs Ætheris Nitrici, f℥ss.
Fiat mistura. *Signa.*—Take a tablespoonful three times a day, in gonorrhœa. Randolph.

Compound Mixture of Copaiba, &c.

℞. Copaibæ,
Alcoholis,
Aquæ Menthæ Piperitæ
Syrupi, } āā f℥ss.
Spiritûs Ætheris Nitrici, f℥ss.
Fiat mistura.—To be taken during the day in four doses, followed by demulcent drinks. In chronic gonorrhœa.

Mixture of Fluid Extract of Cubebs.

℞. Extracti Cubebæ Fluidi, f℥ij.
Mucilaginis Acaciæ,
Syrupi Tolutani, āā f℥ss.
Spiritûs Lavandulæ Compositi, f℥ij.
Aquæ, f℥ijss.
Fiat mistura. *Signa.*—Give a tablespoonful every three hours in gonorrhœa. Editor.

CLASS IV.

ANTILITHICS AND LITHONTRIPTICS.

Antilithics are those substances which arrest or prevent the formation of calculi in the kidneys or bladder. Lithontriptics are supposed to possess the power of dissolving calculous concretions, by acting on the substance which serves as the bond of union to the saline or acid particles composing the stone.

To administer these remedies with any degree of success, requires a chemical knowledge of the ingredients which enter into the formation of the different calculi; attention must also be given to the properties of the urine.

As derangement of the digestive organs almost always coexists with these foreign bodies in the urinary apparatus, we shall gain a very considerable advantage by combining the remedies of this class with those which have a tendency to restore the healthy action of the stomach and bowels.

When lithic or uric acid abounds in the urine, the alkalies will be found to produce the greatest benefit; but where the salts are evidently of the calcareous or magnesian character, the muriatic, or some one of the mineral acids, will constitute the most appropriate remedy.

POWDERS.

Powders of Uva Ursi, Bark, and Opium.

℞. Pulveris Uvæ Ursi,
——— Cinchonæ, āā ʒj. vel ʒij.
——— Opii, gr. iij.
Misce, et divide in chartulas vj.—Of which one may be taken three or four times a day.

The above is the original prescription of Dr. Ferriar, who advises the patient to drink two ounces of lime-water after each dose.

PILLS.

Soap Pills.

℞. Saponis, ʒj.
Divide in pilulas xv. *Signa.*—One every two hours during the day.

Pills of dried Carbonate of Soda.

℞. Sodæ Carbonatis Exsiccatæ,
Saponis, āā ʒj.
Extracti Glycyrrhizæ,
Aquæ, āā q. s.
Fiat massa in pilulas xxx. dividenda.
Signa.—Take three pills, three times a day, as an antilithic.
BEDDOES.

SOLUTIONS, MIXTURES, &c.

Solution of Bicarbonate of Soda, &c.

℞. Sodæ Bicarbonatis, ʒj.
Infusi Quassiæ, fʒiv.
Tincturæ Colombæ, fʒj.
Misce. *Signa.*—A tablespoonful for a dose four times a day.

Solution of Salaëratus.

℞. Potassæ Bicarbonatis, gr. x. vel xv.
Aquæ Seltzer, fʒvj.
Misce.—Draught, to be taken three or four times a day.

Mixture of Bicarbonate of Soda, &c.

℞. Sodæ Bicarbonatis, ʒj.
Misturæ Amygdalæ, fʒiv.
Copaibæ, fʒij.
Tincturæ Opii, gtt. lx.
Fiat mistura secundum artem. *Signa.*—A tablespoonful *pro re nata.* In acute pain of the bladder.

In combination with each of these alkaline preparations, demulcent drinks may with benefit be freely employed.

Carbonate of Potash and Lime-water.

℞. Potassæ Carbonatis, ʒij.
Aquæ Calcis, Oij.
Fiat solutio.—Of which a wineglassful may be taken every two hours, mixed with an equal quantity of new milk.

Mixture of Magnesia, &c.

℞. Magnesiæ Carbonatis, ʒj.
Infusi Gentianæ Compositi, fʒvj.
Fiat mistura.—A wineglassful to be taken three times a day.

This mixture is recommended by Mr. Brande, of London, as superior to the alkalies, in cases where uric acid abounds.

Mixture of Muriatic acid in Barley-water.

℞. Acidi Muriatici, gtt. x. vel xx.
Decocti Hordei, fʒviij.
Misce. Dose, a tablespoonful largely diluted, three or four times a day.—In stone, when the calcareous properties are most apparent.

Nitric acid has been given with the same intention, but appears to be less useful than muriatic.

Oil of Turpentine.

℞. Olei Terebinthinæ, fʒss.
Signa.—From thirty drops to a large teaspoonful may be taken on sugar, and repeated *pro re nata*. See also the formula given under Diuretics.

This medicine has been frequently given of late in the passage of urinary calculi down the ureters. It is stated by Dr. Physick that this remedy, proportioned in its dose to the degree of suffering, affords more prompt relief than any other.

Urethral Injection of Carbonate of Soda.

℞. Sodæ Carbonatis, ʒj.
Saponis, ʒij.
Aquæ destillatæ, fʒxij.
Fiat solutio et cola.
Signa.—Use as an injection, for softening uric acid deposits, and calculi. HÔPITAL DE MONTPELLIER.

CLASS V.

DIAPHORETICS.

During the exhibition of this class of medicines the patient must be confined to his bed; and when diaphoresis is once excited, every precaution should be taken lest it be suddenly checked.

Venesection should generally be resorted to when there is much arterial excitement with great heat of the skin, before we attempt to give diaphoretics. When the skin continues steadily hot and dry, all external warmth must be removed, and cold water freely applied to the temples, hands, feet, &c., while the room is to be kept cool by a free current of fresh air. Under these circumstances, cold water may be frequently and plentifully drunk by the patient. Diaphoretics given in conjunction with these general means, will act with much more certainty than if great heat of the surface is maintained by covering the patient with heavy bedclothes. If it be desirable to produce perspiration when the heat of the skin is not above the natural standard, we shall obtain our object most readily by placing the patient in a warm bed, giving him warm drinks freely, placing his feet in warm water, or applying hot bottles, or bags of sand, to the different parts of his body. The bags of sand accommodate themselves to the inequalities of the surface, and therefore form an excellent mode of applying heat externally. Warm bricks, covered with cloths, and wetted with vinegar, may also be used advantageously. Employed in this way they form a steam-bath. The same effect may be produced by conducting the vapor of alcohol through a tube, under the bedclothes of the patient.

In a few words, then, we have described the manner of producing diaphoresis under opposite states of the system. In the first instance we solicit, in the second we rather extort it.

It may be proper to observe, that in the febrile affections the frequent change of linen about the patient is not only warrant-

able, but absolutely necessary, whilst employing this class of remedies.

Where, however, we are desirous of producing what is emphatically termed "*a sweat*," we should envelop the patient in a flannel shirt or gown, and avoid, as was before observed, every cause which may suddenly check the cutaneous discharge, and more especially purging and diuresis.

In the treatment of ordinary fevers, we usually resort to articles recognized by the profession as being capable of producing perspiration, or sweating, soon after their exhibition; while in chronic diseases, as syphilis, scrofula, and the cachectic state following the use or abuse of mercury, others are employed which combine an alterative property with their tendency to the skin. It is therefore deemed advisable to make two sub-classes, viz. 1. Ordinary Diaphoretics, and 2. Alterative Diaphoretics.

Sub-Class. I.—ORDINARY DIAPHORETICS.

POWDERS.

Dover's Powder.

℞. Pulveris Ipecacuanhæ et Opii, ʒss. vel ʒj.
Divide in pulveres vj.
Signa.—Take one powder three times a day.

The most material difference between the officinal powder and that of Dr. Dover, made public in 1733, is in the substitution of the sulphate of potash for saltpetre.

The principal use of the former salt in this preparation, appears to be to facilitate the minute division of the other two ingredients. Its crystals are extremely hard, and the prolonged trituration necessary to reduce them, renders the opium and ipecacuanha impalpable. It is one of the happiest and most useful combinations, having stood the test of time and experience with undiminished reputation. To promote its operation, *warm drinks* may be freely taken, but not immediately after the dose, lest vomiting be induced.

Antimonial Powder.

℞. Pulvis Antimonialis, *Ed.* ʒj.
Divide in chartulas vj. *Signa.*—One every two or three hours in sirup or molasses. In fevers.

This powder, which has been introduced as the succedaneum

of the celebrated Fever Powder of Dr. James has lately been pronounced inert by Mr. Richard Phillips, chemist of London. Learning that it had produced no effect when largely exhibited, he determined to examine it *chemically*, and found it to consist of peroxide of antimony (which he says is inert), and the phosphate of lime in mixture. But, as Dr. Paris observes, "it will be difficult for the chemist to persuade the physician he can never have derived any benefit from the exhibition of antimonial powder."

Nitrous Powders.

℞. Pulveris Potassæ Nitratis, ʒj.
Antimonii et Potassæ Tartratis, gr. ss.
Hydrargyri Chloridi Mitis, gr. vj.
Fiant pulveres vj. *Signa.*—One to be taken every two hours in sirup or molasses. In febrile affections.

The calomel may be omitted or employed, at the discretion of the practitioner.

Powders with Opium, Ipecacuanha, Calomel, and Nitre.

R. Pulveris Opii, gr. iij.
——— Ipecacuanhæ, gr. vj.
Hydrargyri Chloridi Mitis, gr. jss.
Potassæ Nitratis, ʒss.
Fiant pulveres vj. *Signa.*—One to be taken every three or four hours.

Powders with Calomel, Opium, and Ipecacuanha.

℞. Pulveris Opii, gr. iv.
Hydrargyri Chloridi Mitis, gr. xvj.
Pulveris Ipecacuanhæ, gr. viij.
Divide in pulveres viij. *Signa.*—One to be taken every hour or two hours.

This combination is recommended by Professor Chapman in dysentery. From its evident diaphoretic tendency we have been induced to place it under this head.

Powders of Precipitated Sulphuret of Antimony, Calomel, &c.

℞. Antimonii Sulphureti Præcipitati,
Hydrargyri Chloridi Mitis, āā gr. vj.
Pulveris Guaiaci, ʒj.
Fiant chartulæ vj. *Signa.*—One to be taken morning and evening, with double or even triple proportion of the ingredients, if necessary. In cutaneous diseases.

Soda Powder of Guy's Hospital.

℞. Sodæ Carbonatis exsiccatæ, ʒj.
Hydrargyri Chloridi Mitis, gr. xij.
Pulveris Cretæ Compositi, *Lond.* ʒij.
Misce. *Signa.*—Give three to eight grains at night for a week, in infantile gastric fever; followed in the morning by five grains of rhubarb mixed with ten grains of the sulphate of potash. Dr. Fordyce says of the above: "Had I been more ambitious of dying a rich man than of living a useful member of society, the powers of our antihectic powder in curing, as if by miracle, the hectic fever and the swelled bellies of children in London, would have remained a secret while I lived."

GOLDING BIRD.

Powders with Guaiacum, &c.

℞. Pulveris Guaiaci,
——— Potassæ Nitratis, āā ʒj.
——— Ipecacuanhæ, gr. iij.
——— Opii, gr. ij.
Fiant pulveres vj. *Signa.*—One to be taken every three hours in a little jelly or molasses.

A stimulating diaphoretic, and particularly serviceable in acute rheumatism after the reduction of inflammatory symptoms.

DIAPHORETIC MIXTURES.

Neutral or Saline Mixture.

℞. Succi Limonis recentis, fʒiss.
Potassæ Carbonatis, q. s. ad saturandum,
Sacchari, ʒij.
Antimonii et Potassæ Tartratis, gr. ss.
Aquæ destillatæ, fʒiij.
Misce.—A tablespoonful to be taken every two hours. In fevers.

This preparation is one of our most agreeable diaphoretics. Its powers are decidedly increased by the addition of tartar emetic; which, however, may be omitted, and the sweet spirits of nitre substituted, if preferred.

Solution of Citrate of Potash.

℞. Potassæ Citratis, ʒiij.
Olei Limonis, gtt. ij.
Sacchari, ʒij.
Aquæ destillatæ, fʒiv.
Misce.—A tablespoonful to be taken every two hours. This

preparation is a good substitute for the preceding one, and is in several respects to be preferred. Spirits of nitre may be added.

Effervescing Draught.

℞. Potassæ Carbonatis, ʒij.
Aquæ destillatæ, fʒiv.
Misce, et fiat solutio.

℞. Succi Limonis recentis,
Aquæ destillatæ, āā fʒij.
Misce. *Signa.*—Mix two tablespoonfuls of the lemonade with one of the alkaline solution, and let it be drunk while effervescing, to be repeated *pro re nata.*

This preparation differs from the neutral mixture more in the mode of exhibition than in any other important particular. It is of great value when irritability of the stomach precludes the use of ordinary diaphoretics.

Spirits of Mindereri.

℞. Aceti destillati, vel Acidi Acetici diluti, fʒvj.
Ammoniæ Carbonatis, q. s. ad saturandum.
Add the carbonate of ammonia gradually to the acid or vinegar until it is saturated.
Signa.—Take a tablespoonful every two hours.

This excellent diaphoretic in inflammatory diseases, appears to have been first used by Boerhaave, in 1732. With us it is generally prescribed in combination, under one of the following forms:—

Spirits of Mindereri and Antimonial Wine.

℞. Liquoris Ammoniæ Acetatis, fʒij.
Aquæ Cinnamomi, fʒj.
Vini Antimonii, fʒj.
Aquæ destillatæ, fʒij.
Fiat mistura. *Signa.*—A tablespoonful every two or three hours.

Spirits of Mindereri, Sweet Spirits of Nitre, &c.

℞. Liquoris Ammoniæ Acetatis, fʒvj.
Syrupi Limonis, fʒij.
Vini Antimonii, fʒjss.
Spiritûs Ætheris Nitrici, fʒij.—fʒss.
Tincturæ Opii, gtt. xlv.
Fiat mistura. *Signa.*—Take a tablespoonful every two hours.

EBERLE.

Solution of Citrate of Ammonia, &c.

℞. Succi Limonis recentis, f℥j.
Ammoniæ Carbonatis, q. s. ad saturandum.
Sacchari, ℥j.
Aquæ destillatæ, f℥iv.
Fiat mistura. *Signa.*—A tablespoonful may be taken every two or three hours, *pro re nata.*

This preparation is seldom employed in the practice of this city. It may, however, be beneficially given as a pleasant stimulating diaphoretic.

Sweet Spirits of Nitre, and Antimonial Wine.

℞. Spiritûs Ætheris Nitrici, f℥j.
Vini Antimonii, f℥ij.
Misce. *Signa.*—A teaspoonful may be taken every hour or two hours, in barley-water, during the hot stage of intermittent and other fevers.

Sweet Spirits of Nitre, with Antimonial Wine and Laudanum.

℞. Tincturæ Opii, gtt. xxv.
Spiritûs Ætheris Nitrici, f℥j.
Vini Antimonii, gtt. xx.
Aquæ destillatæ, f℥ss.
Fiat mistura.—To be given at a dose, and repeated *pro re nata.*

Dr. Chapman observes, in his Therapeutics, that "this combination very frequently acts as a diuretic in dropsy, and has more than an once, within my knowledge, removed the effusion in this disease, under circumstances the least to be expected."

Mixture of Saltpetre and Tartar Emetic.

℞. Potassæ Nitratis, ℥ij.
Antimonii et Potassæ Tartratis, gr. j.
Pulveris Extracti Glycyrrhizæ,
———– Acaciæ, āā ℥ij.
Aquæ Fœniculi,
——— destillatæ, āā f℥iijss.
Fiat mistura. *Signa.*—Give a tablespoonful every two hours.

This is proposed as a substitute for the nitrous powders, as being less apt to offend the stomach than the same substances in a pulverulent form. EBERLE.

Mixture with Guaiacum, &c.

℞. Pulveris Guaiaci Resinæ, ʒij.
——— Potassæ Nitratis, ʒiss.
Antimonii et Potassæ Tartratis, gr. j.
Pulveris Acaciæ, ʒj.
——— Extracti Glycyrrhizæ, ℈j.
Aquæ destillatæ, fʒviij.
Fiat mistura. *Signa.*—A tablespoonful three or four times a day.

This preparation, if made without the extract of liquorice, is disposed to turn green, which gives it an unpleasant appearance, and sometimes induces the patient to refrain from it until the physician arrives. It is employed principally in rheumatic cases.

Solution of Nitrate of Potash.

℞. Decocti Hordei, Oj.
Potassæ Nitratis, ʒij.
Succi Limonis, fʒj.
Fiat potus.—To be used warm as a common drink.

Tincture of Tolu with Wine of Antimony.

℞. Tincturæ Tolutanæ, fʒv.
Pulveris Acaciæ, ʒiij.
Sacchari, ʒj.
Vini Antimonii, fʒj.
Aquæ Cinnamomi, fʒij.
Fiat mistura. *Signa.*—A tablespoonful three or four times a day.

This is a stimulating diaphoretic, and will be found serviceable in pectoral diseases accompanied with an excessive mucous discharge depending on debility of the bronchial membrane.

Mixture with Aconite and Wine of Colchicum.

℞. Extracti Aconiti Alcoholici, gr. xij.
Syrupi, fʒj.
Vini Colchici Seminis, fʒss.
Fiat mistura. *Signa.*—Take fifteen drops every three hours.

Used in acute and chronic rheumatism, gradually increasing the dose. WEBER.

Mixture with Aconite and Valerian.

℞. Pulveris Valerianæ, ℥ss.
Aquæ bullientis, f℥vj.
Macera per horas duas et cola. Dein adde—
Extracti Aconiti Alcoholici, gr. vj.
Syrupi, f℥ss.
Liquoris Ammoniæ Acetatis, f℥j.
Misce. *Signa.*—Take a tablespoonful every two hours.

Used in nervous gout. RICHTER.

Mixture with Arnica.

℞. Arnicæ Florum, ℥ij.
Aquæ bullientis, f℥vj.
Macera per horas duas, et cola. Dein adde—
Pulveris Acaciæ, ℥ij.
Syrupi Aurantii Corticis, f℥j.
Misce. *Signa.*—Take a tablespoonful every two hours in low nervous fever, as a stimulant diaphoretic. BERENDS.

I have selected the above, out of thirty German prescriptions for arnica, as being one of the most simple, and perhaps one of the best forms, for administering an article, which has hitherto attracted little attention among us, although it is frequently prescribed by men of the highest standing in Germany.

EDITOR.

INFUSIONS.

Infusion of Boneset.

℞. Eupatorii, ℥j.
Aquæ bullientis, Oj.
Infuse for thirty minutes in a covered vessel; then decant and take a wineglassful every hour, till perspiration is freely induced. The infusion must be taken as hot as it can be drunk; otherwise it may produce vomiting.

Infusion of Pipsissewa.

℞. Chimaphilæ, ℥j.
Aquæ bullientis, Oj.
Fiat infusum.—A teacupful every two hours.

Infusion of the Asclepias Tuberosa, or Pleurisy Root.

℞. Radicis Asclepiadis Tuberosæ, contritæ, ℥j.
Aquæ bullientis, Oiss.
Fiat infusum. *Signa.*—A teacupful to be taken warm, as frequently as the stomach will bear it. CHAPMAN.

Professor Chapman observes of this plant: "As a diaphoretic, I think it is distinguished by great certainty and permanency of operation, and has this estimable property, that it produces its effects without increasing much the force of the circulation, raising the temperature of the surface, or creating inquietude and restlessness."—*Therapeutics*, vol. i. p. 347.

I have found the virtues of the pleurisy root to be better developed, by boiling one ounce in a quart of water down to a pint, and straining. EDITOR.

SUB-CLASS II.—ALTERATIVE DIAPHORETICS.

PILLS.

Pills of Red Sulphuret of Mercury, &c.

℞. Hydrargyri Sulphureti Rubri,
Pulveris Serpentariæ, āā ℥ss.
Syrupi, q. s.
Fiant pilulæ xij. *Signa.*—Two of these to be taken three times a day.

They are alterative as well as diaphoretic, and are useful in herpetic and other obstinate cutaneous complaints.

Pills of Sulphuret of Antimony, &c.—Plummer's Pills.

℞. Hydrargyri Chloridi Mitis,
Antimonii Sulphureti præcipitati, āā ℥ss.
Pulveris Guaiaci Resinæ, ℥j.
Sacchari Fæcis, q. s. ut fiant pilulæ lx.
Three pills to be taken night and morning.

These pills were recommended by Professor Plummer, in leprosy, secondary syphilis affecting the skin, gleets, old ulcers, &c. &c. The decoction of guaiacum generally accompanies their use.

DECOCTIONS.

Sirup or Rob Anti-syphilitique of Laffecteur.

℞. Sarsaparillæ,
Arundinis Phragmitis, āā ℥xxx.
Florum Boraginis Officinalis, ℥viij.
Sennæ,
Rosæ Albæ, āā ℥ij.
Sacchari,
Mellis, āā ℔vj.
Aquæ, q. s.

Boil the sarsaparilla and marsh reed grass in nine pints of water for one hour; strain off the decoction, and pour the same quantity of water on the residuum, which is to be boiled for two hours; towards the end of the boiling add the borage flower, senna, and rose leaves, and then strain off, and to both decoctions add the sugar and honey, and boil the whole to the consistence of a sirup.

The dose for a man is six tablespoonfuls, and for a woman four, taken without addition, at six in the morning.

The sarsaparilla ptisan is then to be commenced, and is made as follows:—

Boil ℥ij. of Sarsaparilla in three quarts of water, to two quarts, suffer it to infuse during the night, and strain it off in the morning.

This is to be drunk by the tumblerful, and several are to be taken during the day.

The above preparation has been asserted, by the New York Medical Society, to be nearly identical with the noted Panacea of Swaim. It is believed that corrosive sublimate is often introduced into these nostrums at the discretion of the vender. That both the French and American have frequently salivated, is well ascertained.

Decoction of Burdock.

℞. Radicis Lappæ, ℥iij.
Aquæ, Oiij.

Reduce the fluid by boiling to two pints, and strain. A teacupful may be taken for a dose, five or six times a day.

In syphilis, scurvy, arthritic affections, &c.

Decoction of Mezereon.

℞. Mezerei, ℥vj.
Aquæ, Ovj.
Reduce by boiling to ℔iv., and near the end of the decoction, add Radicis Glycyrrhizæ, ℥j. Strain, and give from one to four pounds per diem, as the stomach will bear it. In scrofula complicated with syphilis, &c.

Compound Decoction of Sarsaparilla.

℞. Decocti Sarsaparillæ Compositi, Oj.
Give a teacupful four or five times a day.

This preparation, a formula for which is to be found in almost every Pharmacopœia, has long been celebrated in the sequelæ of syphilis, and the disease produced by the improper exhibition of mercury. It is also much employed in rheumatism. The rules laid down in the Dispensatories for the preparation of the decoction should be closely observed.

Decoction of Zittmann.

This preparation has long been used successfully in Germany and England, and is now coming into notice in this country, as a valuable remedy in the treatment of secondary syphilis, complicated with a scrofulous diathesis. The formulæ given below I have translated from a work published by Prof. Walther, of Leipzig, in 1847, and which he says are copied from Zittmann's original prescription (nach der Originalvorschrift.) It will be seen that the strength of the decoction varies materially from the formulæ heretofore published. EDITOR.

℞. Sarsaparilla, in chips, ℥xij.
Digest in a tinned vessel for 24 hours, with spring water, ℔xlviii., then add, inclosed in a small bag—
Of Saccharine Alum,[1] ℥jss.
" Calomel, ℥ss.
" Cinnabar, ℥j.
Boil down to ℔xvj. When the boiling is nearly completed add—
Of Senna, ℥iij.
" bruised Aniseed,
" Fennelseed each, ℥ss.
Remove from the fire and add—
Of bruised Liquorice root, ℥jss.
And when cold, strain, and mark: *The Strong Decoction.*

[1] Saccharine Alum consists of Alum four parts, and Kino one part. DORVAULT.

℞. To the dregs of the strong decoction, add,
Sarsaparilla, in chips, ℥vj.
Digest for twenty-four-hours in spring water, ℔xlviij.
Then boil down to ℔xvi. When the boiling is nearly completed, add—
Of Lemon Peel, sliced, }
" Cinnamon, bruised, } each ℥iij.
" Cardamoms, " }
Remove from the fire; add—
Of bruised Liquorice root, ℥vj.
When cold, strain, and mark: *The Weak Decoction.*

Patients with constitutional, or secondary syphilis, or inveterate skin diseases complicated with a scrofulous habit, are treated in the following manner: At night, the patient takes a purgative dose of calomel and jalap, or some other active cathartic, "and the next morning begins the regular course, by drinking one-half of a quart bottle of the strong decoction, taking a glass of it warm every half hour, in bed to bring out the perspiration. In the afternoon, he takes a whole bottle of the weak decoction, cold, in divided doses; and in the evening he drinks (cold) the remaining half of his bottle of strong decoction. This is repeated for four days. On the sixth, a purgative is again administered; and for the following four days the decoctions are used. On the eleventh, pills are again given, and then all treatment is suspended for a week. If the cure is not completed, the same process is again resorted to. The diet should consist of light broths, bread, and lean roasted meats."

Although the above prescription cannot be defended on strict chemical and pharmaceutical grounds, yet the remarkable success attending its use in many of the hospitals of Europe, entitle it to notice.

MIXTURES.

Mixture of Muriate of Baryta and Iron.

℞. Barii Chloridi, ℥ss.
Aquæ Menthæ Piperitæ, f℥ijss.
Tincturæ Ferri Chloridi, f℥ss.
Syrupi Aurantii Corticis, f℥j.
Fiat mistura. *Signa.*—Take a teaspoonful every three hours.

Used in obstinate scrofulous diseases. Each dose contains about one grain of the chloride of barium, and seventeen drops of the muriated tincture of iron. This corresponds in strength with a prescription by FISCHER.

Mixture with Buchu and Iodide of Potassium.

℞. Infusi Buchu, f ℥viij.
Liquoris Potassæ, f ℥j.
Potassii Iodidi, ℥ss.
Spiritûs Ætheris Nitrici, f ℥iij.
Fiat mistura. *Signa.*—Take two tablespoonfuls three times a day.

Used in chronic rheumatism. S. Wright.

Corrosive Sublimate Solution.

℞. Hydrargyri Chloridi Corrosivi, gr. j.
Solve in Aquam, f ℥ss.
Dein adde—
Syrupi Sarsaparillæ Compositi, f ℥vijss.
Misce bene. *Signa.*—Take a tablespoonful three times daily.

Used in chronic rheumatism, secondary syphilis, and various skin diseases. Editor.

Sarsaparilla Beer.

℞. Sarsaparillæ contusæ, ℔ij.
Pulveris Guaiaci Corticis, ℥viij.
Ligni Guaiaci concisi,
Anisi,
Radicis Glycyrrhizæ contusæ, āā ℥iv.
Mezerei, ℥j.
Sacchari Fæcis, ℔ij.
Caryophylli contusi, ℥ss.
Aquæ bullientis, congios iv.
Mix these ingredients, and agitate the vessel thrice a day. When a fermentation has well begun it is fit for use, and may be taken in the dose of a small tumblerful twice or thrice a day.

"This is the Spanish recipe for the Jarave or diet drink, somewhat modified. If intended for old and obstinate complaints, as leprous affections, elephantiasis, various anomalous ulcerations and foul disorders of the skin, there may be added to the jug, *after fermentation has well begun*, tartrate of antimony twelve grains, corrosive sublimate eight or ten grains, muriate of ammonia one dram, dissolved previously in a little water. These remedies greatly increase the alterative powers of the vegetable infusion, and so effectually prevent its decomposition that it may be kept for a long time unaltered, *even in a hot climate.*"—See *Hancock on Sarsaparilla. Journal of the Philadelphia College of Pharmacy*, vol. i. No. 4.

CLASS VI.

EXPECTORANTS.

During the administration of Expectorants the patient should be kept warm, and, if the complaint be violent, in bed. The dose of all Expectorants should be repeated sufficiently often to allay the irritation as much as possible; for it is obvious that the act of coughing increases that very irritation which originally gave rise to it.

POWDERS, PILLS, AND LOZENGES.

Powders of Myrrh, Ipecacuanha, &c.

℞. Pulveris Myrrhæ, gr. xij.
——— Ipecacuanhæ, gr. vj.
——— Potassæ Nitratis, ʒss.
Misce, et divide in partes iv. One to be taken every fourth hour. A stimulating expectorant.—Paris's *Pharmacologia.*

Compound Powder of Ipecacuanha.

℞. Pulveris Ipecacuanhæ, et Opii, ʒss.
Divide in chartulas iij. *Signa.*—One, two or three times in 24 hours, mixed in sugar and water.

This, the Dover's powder, has been already introduced under the head of Diaphoretics, where, perhaps, it most properly belongs; but it often proves of such decided advantage as an expectorant, as to deserve an insertion here.

Powders with Nitrate of Potash, Calomel, Opium, &c.

℞. Potassæ Nitratis, ʒj.
Hydrargyri Chloridi Mitis, gr. iij.
Pulveris Opii, gr. iij.
——— Ipecacuanhæ, gr. iij. vel vj.
Misce, et divide in chartulas vj. *Signa.*—One every two or three hours in sirup or molasses.

This preparation closely resembles the former, with the exception that it contains *calomel.*

All powders containing calomel, or other metallic preparations, should be given in sirup, as they sink when water is employed as the vehicle.

Pills of Sulphate of Zinc and Myrrh.

℞. Zinci Sulphatis, gr. x.
Pulveris Myrrhæ, ʒiss.
Confectionis Rosæ, q. s. ut fiant pilulæ xx.

This prescription is taken from the Pharmacologia of Dr. Paris, who recommends two of the pills to be taken twice a day.

It is principally used in pertussis; but a more efficient direction would be to reduce the myrrh to a dram, on account of the size of the pills, and to give a pill every two hours. Dr. Paris remarks, that the principal nostrums for hooping-cough are formed either of opium or sulphate of zinc.

Pills of Conium, Ipecacuanha, &c.

℞. Extracti Conii,
Pulveris Ipecacuanhæ et Opii, āā gr. x.
Misce, et fiant pilulæ v.—Of which two may be taken at bedtime. In pulmonary irritation, attended with rheumatic and other local pains.

Pills of Tartar Emetic, &c.

℞. Antimonii et Potassæ Tartratis,
Pulveris Opii, āā gr. jss.
——— Tragacanthæ, gr. x.
Confectionis Rosæ, q. s. ut fiant pilulæ xxv. Two to be taken night and morning. In chronic pulmonary catarrh.

Dr. Pariset.

Pills of Squill, Ammoniac, &c.

℞. Pulveris Scillæ, gr. xxx.
Ammoniaci, ʒiss.
Extracti Conii, gr. xxx.
Divide into xxx. pills; of which two may be taken twice a day. In asthma and chronic catarrh.

Pills of Squill, Calomel, &c.

℞. Hydrargyri Chloridi Mitis, gr. iij.
Scillæ recentis,
Ammoniaci, āā ℈j.
Pulveris Ipecacuanhæ et Opii, ʒss.
Confectionis Rosæ, q. s. ut fiat massa, et divide in pilulas xxx.
One, three or four times a day. In troublesome cough.

Dr. Latham.

The recent squill is greatly preferred by some physicians. It is generally given in double the dose of the dried root.

Pills of Calomel, Squill, &c.

℞. Hydrargyri Chloridi Mitis, gr. xxiv.
Pulveris Scillæ, ʒss.
Antimonii et Potassæ Tartratis, gr. vj.
Pulveris Opii, gr. xviij.
Syrupi, q. s.
Fiant pilulæ xxiv. *Signa.*—One every night. In catarrhal affections.

Pills of Sulphate of Zinc.

℞. Zinci Sulphatis, ℈ss.
Confectionis Rosæ, q. s. ut fiant pilulæ xx.—One of these pills may be given three times a day. In phthisis and pertussis.

Tar Pills.

℞. Picis liquidæ, ʒj.
Pulveris Glycyrrhizæ, q. s. ut fiant pilulæ xxx.—One to be taken every three or four hours.

Pills of Tar, Gentian, and Quassia.

℞. Picis liquidæ, ʒj.
Extracti Quassiæ, gr. xx.
Pulveris Gentianæ, q. s. ut fiant pilulæ xx. *Signa.*—To take a pill morning, noon, and night.

Tar may be advantageously made into pills with powdered gentian alone, and thus combine the tonic and expectorant effect.

Pills of Myrrh, &c.

℞. Myrrhæ, ʒiss.
Pulveris Scillæ, ʒss.
Extracti Hyoscyami, ℈ij.
Aquæ destillatæ, q. s. ut fiant pilulæ xxx.—Two to be taken night and morning.

These pills are recommended by Dr. Paris, in phthisis and catarrh attended with great debility of the pulmonary organs.

Pills of Cyanuret of Potassium.

℞. Potassii Cyanureti, gr. j.
Amyli, gr. iv.
Syrupi, q. s. ut fiant pilulæ viij. Dose, a pill night and morning, watching its effect.

See remarks on Prussic Acid, page 105.

Wistar's Cough Lozenges.

℞. Pulveris Acaciæ,
——— Extracti Glycyrrhizæ,
——— Sacchari, āā ʒij.
——— Opii, gr. vj.
Olei Anisi, gtt. iv.
Misce, et adde—
Aquæ destillatæ, q. s. ut fiant trochisci lx. *Signa.*—One of these may be dissolved in the mouth three or four times a day.

Emetia Lozenges.

℞. Emetiæ Fuscæ, gr. xxxij.
Sacchari, ʒij.
Mucilaginis Acaciæ, q. s.
Divide into lozenges, each weighing ten grains. One of these will produce more or less nausea in a child; but if this is not desirable, they can be given in divided portions. Adults may take several at intervals of two hours, without the risk of vomiting.

Cubeb Lozenges.

℞. Pulveris Cubebæ, ʒij.
Balsami Peruviani, gr. vj.
Syrupi Tolutani, fʒj.
Extracti Glycyrrhizæ, ʒj.
Acaciæ, q. s.

Mix, and divide into lozenges of ten grains each. These are called Spitta's lozenges, and are celebrated for the relief they afford in coryza.

Jackson's Pectoral Lozenges.

℞. Pulveris Ipecacuanhæ, gr. x.
Antimonii Sulphureti præcipitati, gr. v.
Morphiæ Muriatis, gr. vj.
Pulveris Acaciæ,
——— Sacchari,
——— Extracti Glycyrrhizæ } āā ʒxj.
Olei Sassafras, gtt. iv.
Tincturæ Tolutanæ, fʒiv.
Syrupi, q. s.

Fiat massa, in trochiscos cc. dividenda.

Each lozenge, weighing ten grains, contains of ipecacuanha gr. $\frac{1}{20}$, of precipitated sulphuret gr. $\frac{1}{40}$, and of the muriate of morphia gr. $\frac{1}{30}$.

Signa.—One of these to be dissolved in the mouth, when the cough is troublesome. S. Jackson.

EXPECTORANT SIRUPS.

Sirup of Squills.

℞. Syrupi Scillæ, fʒj.

Signa.—Take a teaspoonful every three hours.

Sirup of Garlic.

℞. Syrupi Allii, fʒj.

Signa.—Give a teaspoonful to a child every three hours.

This, like the sirup of squills, is an excellent expectorant, being somewhat stimulant in its character.

Sirup of Seneka Snake-root.

℞. Syrupi Senegæ, fʒj.

Signa.—Take a teaspoonful every three hours as a stimulant expectorant.

Coxe's Hive Sirup.

℞. Syrupi Scillæ Compositi, f℥j.
A small teaspoonful may be given to a child of one year old with croup every quarter, half, or one hour, according to the violence of the disease, and until vomiting ensues; then discontinue it.

Sirups of Squills, Seneka, and Ipecacuanha.

℞. Syrupi Scillæ,
——— Senegæ, āā f℥ss.
——— Ipecacuanhæ, f℥j.
Misce. *Signa.*—A teaspoonful every three hours.

This is a favorite combination with some physicians, as it combines the expectorant qualities of the squill and seneka, with the relaxing effect of the ipecacuanha.

Sirup of Assafetida.

℞. Assafœtidæ, ℥j.
Aquæ bullientis, Oj.
Sacchari, ℔ij.
Triturate the assafetida in a mortar, with a portion of the boiling water, until a uniform paste is formed; then gradually add the remainder of the water, strain, and add the sugar, applying a gentle heat to dissolve it. RICHARD PELTZ.

Dose, a teaspoonful every three hours, for a child five years old.

Each fluidounce contains fifteen grains of assafetida. This preparation will keep a month in the hottest weather. Its taste is less nauseous than the milk of assafetida, and altogether, it is one of the very best modes of administering the fetid drug to children in hooping-cough, I am acquainted with.

EDITOR.

Sirup of Wild Cherry Bark.

℞. Syrupi Pruni Virginianæ, f℥ij.
Signa.—Take a tablespoonful every three hours.

When well prepared, this represents the tonic and sedative properties of the wild cherry, which render this bark so peculiarly applicable to the treatment of phthisis.

Jackson's Pectoral Sirup.

℞. Sassafras Medullæ, ℥j.
Acaciæ, ℥j.
Aquæ, Oj.
Macera per horas decem vel duodecim, dein adde—
Sacchari, ℥xxj.
Et solve sine calore, cola, et adde—
Morphiæ Muriatis, gr. viij.
Signa.—Take from a teaspoonful to a tablespoonful, according to circumstances, every three hours.

It is intended that this preparation, when completed, shall measure two pints, and if it does not, the operator is to add the complement of water, so that each fluidounce shall contain one-fourth of a grain of the muriate of morphia. It is much employed in Philadelphia. SAMUEL JACKSON.

EXPECTORANT MIXTURES.

Brown Mixture.

℞. Pulveris Extracti Glycyrrhizæ,
——— Acaciæ, āā ℥ij.
Aquæ ferventis, f℥iv.
Misce, fiat solutio, et adde—
Spiritûs Ætheris Nitrici, f℥j.
Vini Antimonii, f℥ij.
Tincturæ Opii, gtt. xl. vel lx.
Signa.—A tablespoonful for a dose, *pro re nata.* In catarrh.

A preparation very similar to this is now officinal under the name of *Mistura Glycyrrhizæ Composita.*

Mixture with Sirup of Squill, &c.

℞. Syrupi Scillæ, f℥ss.
Tincturæ Opii Camphoratæ, f℥ij.
Vini Antimonii, f℥j.
Pulveris Acaciæ, ℥ss.
Aquæ destillatæ, f℥iij.
Misce. *Signa.*—A teaspoonful every two or three hours.

This is more particularly designed for children.

Mixture with Seneka, Squill, Tartar Emetic, &c.

℞. Decocti Senegæ, f℥iv.
Syrupi Ipecacuanhæ, f℥j.
Oxymellis Scillæ, f℥iij.
Antimonii et Potassæ Tartratis, gr. j.
Fiat mistura. *Signa.*—A teaspoonful, *pro re nata*, for children of two years of age and upwards. In croup.

Mixture with Seneka, Ammoniac, and Tolu.

℞. Senegæ contusæ, ℥ij.
Aquæ bullientis, f℥viij.
Coque ad f℥vj. Cola, et adde—
Syrupi Tolutani, f℥j.
Ammoniaci, ℥ss.
Misce.—A tablespoonful every two hours. In catarrh.

Mixture of Extract of Conium, &c.

℞. Extracti Conii, ℥j.
Tincturæ Opii Camphoratæ, f℥ss.
Syrupi Tolutani, f℥ss.
Aquæ Rosæ, f℥iv.
Misce. *Signa.*—From half to a whole teaspoonful may be given once in four hours to a child a year old, watching the effect.

Dr. Pearson, in his work on pertussis, recommends the above as a valuable formula.

Mixture of Almond Emulsion, &c.

℞. Misturæ Amygdalæ, f℥v.
Vini Ipecacuanhæ,
Tincturæ Scillæ, āā f℥j.
Syrupi Tolutani, f℥vj.
Misce. *Signa.*—Take a tablespoonful whenever the *cough* is urgent.

White Linctus.

℞. Amygdalæ dulcis, No. xv.
Tragacanthæ, ℈j.
Syrupi, f℥j.
Olei Amygdalæ, f℥ij.
Aurantii Floris Aquæ, *Lond.* f℥ij.
Aquæ destillatæ, f℥iv.
Misce. *Signa.*—A tablespoonful for a dose, frequently through the day. In catarrh.

Mixture with Tartar Emetic and Laudanum.

℞. Antimonii et Potassæ Tartratis, gr. j.
Aquæ destillatæ, f ℥j.
Tincturæ Opii, ♏xx.
Misce. *Signa.*—Give a teaspoonful, or a dessertspoonful according to the age of the child, in hooping-cough.

SIR. WM. WATSON.

Mixture with Sal Ammoniac, Squills, etc.

℞. Ammoniæ Muriatis, ℥ss.
Pulveris Acaciæ, ℥ij.
——— Extracti Glycyrrhizæ, ℥iij.
Aquæ, f ℥vjss.
Spiritûs Ætheris Nitrici, f ℥jss.
Aceti Scillæ, f ℥iij.
Fiat mistura. *Signa.*—A tablespoonful every two hours.

A stimulating expectorant and alterative. GOEDEN.

Mixture with Naphthaline.

℞. Naphthalinæ, gr. xvj.
Alcoholis, q. s.
Ut fiat solutio. Dein adde—
Syrupi, f ℥iv.
Misce. *Signa.*—Take a tablespoonful every two hours.

This is a stimulating expectorant, useful in chronic catarrh, humoral asthma, etc. DUPASQUIER.

Mixture of Oil of Amber and Tolu.

℞. Olei Succini rectificati, gtt. lxxx.
Acaciæ,
Sacchari, āā ℥ss.
Aquæ destillatæ, f ℥iv.
Tincturæ Tolutanæ, f ℥ij.
Fiat mistura secundum artem. *Signa.*—A tablespoonful every two or three hours. In spasmodic cough.

Mixture with Carbonate of Potash, &c.

℞. Potassæ Carbonatis, ℥ij.
Vini Antimonii, f ℥j.
Tincturæ Opii, gtt. xl.
Spiritûs Lavandulæ Compositi, f ℥ij.
Aquæ destillatæ, f ℥iv.
Fiat mistura.—And let a tablespoonful be taken every hour or two hours.

Mixture with Bicarbonate of Soda, &c.

℞. Sodæ Bicarbonatis, gr. xij.
Vini Ipecacuanhæ, gtt. xx.
Tincturæ Opii, gtt. iv.
Aquæ destillatæ, f℥j.
Misce. *Signa.*—Give a teaspoonful every two or three hours.

This preparation is designed for children, and is chiefly used in pertussis.

Cochineal Mixture.

℞. Potassæ Carbonatis, ℈j.
Pulveris Cocci, ℈ss.
Sacchari, ℥j.
Aquæ destillatæ, f℥iv.
Fiat solutio.—Dose for children, a teaspoonful every two or three hours.

A popular remedy in pertussis.

Mixture with Tincture of Digitalis, &c.

℞. Tincturæ Digitalis, f℥j.
——— Opii, gtt. lx.
Aquæ destillatæ, f℥ij.
Misce.—A small teaspoonful may be taken three or four times a day. In hæmoptysis and in incipient phthisis.

Mixture of Assafetida, &c.

℞. Assafœtidæ, ℥j.
Aquæ, f℥iv.
Fiat mistura, et adde—
Tincturæ Tolutanæ, f℥ss.
——— Opii, gtt. xx. vel xl.
A teaspoonful to a child every two hours, and a dessertspoonful (or more) as frequently to an adult.

This preparation is of great value in pertussis and other spasmodic diseases of the chest.

Tincture of Bloodroot.

℞. Tincturæ Sanguinariæ, f℥j.
Direct from 30 to 50 drops every three hours.

This native product is one of the most powerful medicinal agents. It is violently emetic in large doses, but in the quantity

recommended is said to produce diaphoresis and effects analogous to those of digitalis.

Its active principle is called *sanguinarina*.

Mixture of Gum Ammoniac, &c.

℞. Ammoniaci, ℥j.
Aquæ destillatæ, f℥iv.
Fiat mistura, et adde—
Oxymellis Scillæ, f℥ij.
Tincturæ Opii Camphoratæ, f℥ss.
A tablespoonful may be given every two hours.

A stimulating expectorant.

Mixture with Milk of Assafetida and Acetate of Ammonia.

℞. Assafœtidæ, ℥ss.
Liquoris Ammoniæ Acetatis,
Aquæ Menthæ Viridis, āā f℥ij.
Fiat mistura.—A teaspoonful to children, and a tablespoonful to adults, in coughs, *pro re nata*.

This simple solution of assafetida is frequently employed, and is found to answer every purpose of more complicated prescriptions.

Mixture of Copaiba and Balsam Tolu, &c.

℞. Copaibæ,
Balsami Tolutani,
Pulveris Acaciæ, āā ℥ss.
Aquæ destillatæ, f℥vj.
Acidi Sulphurici Aromatici, gtt. xx.
Fiat mistura.—Dose, a tablespoonful, *pro re nata*. In chronic hooping-cough. When there is hectic excitement, digitalis may be added.

Tincture of Tolu with Digitalis, &c.

℞. Tincturæ Tolutanæ, f℥iss.
Acidi Sulphurici Aromatici, f℥ss.
Tincturæ Digitalis, f℥j.
Vini Antimonii, f℥ij.
Mellis despumati, f℥iss.
Pulveris Extracti Glycyrrhizæ, ℥ss.
Aquæ destillatæ, f℥vj.
Fiat mistura. *Signa.*—A tablespoonful to be given according to circumstances.

Mixture with Balsam Peru, &c.

℞. Balsami Peruviani, ʒss.
Acaciæ, q. s.
Aquæ Cinnamomi,
——— destillatæ, āā fʒss.
Misce. *Signa.*—To be taken at once, and repeated three or four times a day.

The different *balsams* were at one time almost proscribed from the class of expectorants, on account of their stimulating qualities. Copaiba, however, and some others of this class, are now much employed in diseases of the pulmonary mucous membrane; and the author has himself prescribed it with great advantage in the peculiar hoarseness that follows measles. Ellis.

Tar Beer.

℞. Strong Beer, *one gallon.*
Tar, *sufficient to saturate.*
Mix, and allow them to macerate for three days, with occasional agitation. Dose, one or two tablespoonfuls several times a day. Robinson.

Tar Water.

℞. Picis liquidæ, Oij.
Aquæ, Cong. j.
Mix them, and stir them together with a wooden rod for an hour; then let the tar subside, strain the water and keep it in well-corked bottles.—A pint, or even two pints, may be taken daily; but in some cases the dose must be greatly diminished.

Decoction of Tar and Bran, sometimes called Jew's Beer, or Wine of Tar.

Water, three quarts,
Wheat bran, one quart,
Tar, one pint,
Honey, half pint.
To be simmered together for three hours, and when cool, add a pint of brewer's yeast, and let it stand for thirty-six hours. Then bottle it. Dose, a tablespoonful morning, noon, and night.

Mixture of Gum Ammoniac and Nitric Acid, called Nitric Lac Ammoniac.

℞. Ammoniaci ℈ijss.
Acidi Nitrici, fʒij.
Aquæ, fʒviij.
Pour the nitric acid and water together, then add the compound

gradually to the gum, incorporating them well in a composition mortar. A tablespoonful may be taken three or four times a day.

This preparation is strongly recommended in protracted catarrh and phthisis pulmonalis, by Dr. J. Stuart, author of a treatise on *Colds*.

Mixture of Spermaceti, &c.

℞. Cetacei, ʒij.
Sacchari, ʒiij.
Tincturæ Opii Camphoratæ, fʒss.
Aquæ, fʒviij.

Rub the spermaceti and sugar together with the yelk of an egg, then gradually mix the water.—A tablespoonful for a dose, four or five times a day. In catarrh.

Sirup of Tolu with Belladonna, &c.

℞. Extracti Belladonnæ, gr. viij. vel xij.
Vini Ipecacuanhæ, fʒj.
Syrupi Senegæ, fʒss.
——— Tolutani, fʒiijss.

Misce. *Signa.*—To take a teaspoonful three or four times a day, freely using gum water acidulated with lemon-juice. In coughs.

Infusion of Flaxseed, &c.

℞. Lini, ʒj.
Radicis Glycyrrhizæ contusæ, ʒss.
Aquæ bullientis, Oij.

Macerate for two or three hours near the fire, in a covered vessel; strain, and add lemon-juice sufficient to make it agreeable.

It may be given as a common drink in catarrh.

Decoction of Iceland Moss.

℞. Cetrariæ, ʒj.
Aquæ, Ojss.

Boil to one pint, and strain.

This article once acquired great celebrity in coughs; but was overrated, and lost its reputation. It contains a bitter quality, which is sometimes an advantage in dyspepsia and phthisis. If freed from this, by macerating before boiling, and throwing the first liquor away, as is sometimes done, the pre-

paration is reduced to a mere demulcent, and has no advantages over other members of that class.

Prussic or Hydrocyanic Acid.

As prussic acid rises to the top of an aqueous mixture, thereby rendering the dose very uncertain, we prefer directing the patient to drop the dose each time into a solution of gum Arabic or simple sirup. It should be kept covered from the light, and not allowed to be accessible to those unacquainted with its power, as even a strong inhalation will sometimes prostrate an adult. ELLIS & MORTON.

The physician should also know after what process the acid is made that he prescribes, and that it corresponds in strength with the officinal standard. In other words, that he is employing the *Acidum Hydrocyanicum dilutum* of the U. S. Pharmacopœia, the dose of which is one or two drops, three times a day, in mucilage, or sugar and water, and augmented one drop daily until its action on the system is developed. EDITOR.

Pectoral Mixture.

℞. Acidi Hydrocyanici diluti (one fluidram), f℥j.
Aquæ destillatæ, Oj.
Sacchari, ℥iss.
Fiat mistura. *Signa.*—A dessertspoonful may be taken morning and evening, and gradually increased (if necessary) to six or eight spoonfuls in the twenty-four hours—shaking the vial each time. MAGENDIE.

Mixture with Prussic Acid.

℞. Acaciæ, ℥ss.
Aquæ, f℥vijss.
Fiat solutio, et adde—
Syrupi Tolutani, f℥ss.
Acidi Hydrocyanici diluti, gtt. xij.
Fiat mistura. *Signa.*—Take a tablespoonful every three hours.

This is "a medium dose," which I prefer in commencing the use of so powerful a medicine.—S. G. MORTON, *Illustrations of Pulmonary Consumption*, p. 132.

In the former editions of this work, two formulæ were given for the preparation of "Magendie's medicated solution of hydrocyanate of potassa." The following is more simple, and corresponds with them precisely in strength and dose. EDITOR.

Mixture of Hydrocyanate of Potash.

℞. Potassii Cyanureti (seven grains), gr. vij.
Aquæ destillatæ, Oj.
Fiat solutio, et adde—
Sacchari, ʒjss.
Misce. Dose, a tablespoonful night and morning, watching its effect. Each dose contains one-fifth of a grain.

The cyanuret of potassium is said to exercise the same power over the system as prussic acid, being equally active, but with the advantage of being a more uniform and permanent medicine.

Mixture with Cyanuret of Potassium.

℞. Potassii Cyanureti (half a grain), gr. ss.
Aquæ Lactucæ, fʒij.
Syrupi Altheæ, fʒj.
Fiat mistura. Dose, a tablespoonful every two hours.
MAGENDIE.

We cannot enjoin too much caution in the use of all the preparations of prussic acid, some of which are extremely variable in themselves, and all produce very unequal effects on different constitutions. It is questionable whether the practice of medicine has gained anything by their adoption into the Materia Medica.

Mixture with Tincture of Lobelia and Prussic Acid.

℞. Tincturæ Lobeliæ, fʒj.
Acidi Hydrocyanici diluti, gtt. j. vel ij.
Misce. *Signa.*—To be taken at a dose, three or four times a day. Highly serviceable in asthma and (in smaller doses) in hooping-cough. LIVEZEY.

Mixture of Gum Ammoniac, &c.

℞. Misturæ Ammoniaci, fʒiij.
Tincturæ Castorei, fʒss.
Syrupi Tolutani, fʒss.
Tincturæ Opii, gtt. xx. vel xxx.
Aquæ Cinnamomi, fʒj.
Fiat mistura. *Signa.*—A small tablespoonful every three or four hours, in troublesome cough. DR. MEIGS.

Mixture of Morphia and Tolu.

℞. Oxymellis Scillæ, f℥iss.
Syrupi Tolutani, f℥ss.
Morphiæ Acetatis, gr. ss. vel j.
Misce. *Signa.*—A teaspoonful may be taken every two or three hours, *pro re nata*. In phthisis, and other diseases attended with cough.

Tolu with Morphia and Antimony.

℞. Mucilaginis Acaciæ, Oj.
Syrupi Tolutani, f℥ij.
Morphiæ Sulphatis, gr. i. vel ij.
Antimonii et Potassæ Tartratis, gr. i. vel ij.
Misce. *Signa.*—A tablespoonful to be given every two hours.
MORTON *on Consumption*, p. 123.

Decoction of Seneka Snakeroot.

℞. Radicis Senegæ contusæ, ℥j.
——— Glycyrrhizæ, ℥ss.
Aquæ destillatæ, Ojss.
Boil down to a pint, and strain. Dose, a tablespoonful.

This decoction is prescribed in pectoral diseases, and especially in croup. It is sometimes too pungent, and may require to be much diluted.

Infusion of Tar and Hops.

℞. Picis liquidæ, ℥j.
Aquæ bullientis, Oij.
Humuli, ℥ss.
Misce et cola.
Dose, a tablespoonful morning, noon, and night.

INHALATION.

Inhalation is a means of applying remedies directly to the lungs. A good instrument for this purpose is the *Inhaler* of Mudge; but as a substitute the common teapot may be used, or a funnel inverted over a bowl. The substances usually selected for inhalation are, the steam of warm water; the steam of vinegar, produced by pouring it into boiling water; and various other articles next to be enumerated.

Inhalation of Balsam of Tolu.

℞. Balsami Tolutani, ℥j.
Aquæ bullientis, Oj.
Misce.—To be inhaled.

Ether is also used alone, or impregnated. When saturated with cicuta, and inhaled from a wineglass, it is adapted to protracted catarrh, pneumonia, consumption, &c. Dr. Morton advises Dr. Pearson's formula, which consists in keeping a dram of powdered cicuta in an ounce of ether for a week. A teaspoonful or two of this impregnated fluid may be inhaled at a time, and repeated thrice per diem.—MORTON *on Consumption*, p. 136. The latter practitioner has more recently recommended the following formula:—

Ethereal Tincture of Iodine and Cicuta for Inhalation.

℞. Iodinii, gr. viij.
Pulveris Conii, gr. xvj.
Ætheris, f℥ij.
Macerate the ingredients together for 24 hours or more. Half a teaspoonful at a time is to be breathed from a wineglass grasped in the warm hand, and repeated twice or thrice a day. If it does not affect the head, the quantity inhaled may be gradually increased to a teaspoonful. S. G. MORTON.

The following is Dr. Scudamore's recipe for Iodine inhalation:—

℞. Iodinii,
Potassii Iodidi, āā gr. vj.
Aquæ destillatæ, f℥v. ℥vj.
Alcoholis, f℥j.
Mix, and use for inhalation.

I usually commence with a dram of this mixture, proceeding gradually to the extent of half an ounce (rarely more), putting two-thirds the dose for the first half of the time (10, 15, or 20 minutes), and the other third for the remainder, always adding thirty minims of a saturated tincture of conium, with an increase if the cough be very irritable. Occasionally, I add some saturated tincture of ipecacuanha; and when the respiration is spasmodically affected, some ethereal tincture of lobelia inflata. SCUDAMORE.

Stramonium is particularly serviceable in asthma and consumption. The root is cut, dried, and smoked from a common pipe.

Fumigation with *tar* and *turpentine* is also much in use. It

is usually applied by placing the tar on a dish over coals, and suffering it slowly to evaporate; but a far neater and more effectual mode is that practised by Sir Alexander Crichton, viz: "An ounce of potash is added to every pound of tar, in order that the latter may be deprived of its pyroligneous acid. The two ingredients being well mixed, should be first boiled for a few minutes in the open air, in order to disengage any impurities, and then be kept at a simmer in the room of the patient. This is effected by putting the mixture in an iron vessel, and placing the latter over a spirit-lamp, or some analogous contrivance. In this way, not only a chamber, but an entire house, is speedily pervaded by a most agreeable vapor, which, although it may at first excite some disposition to cough, both in healthy and sick persons, very soon, in a majority of cases, allays this symptom, and with it a great proportion of the patient's distress."—MORTON, *ut supra.*

The fumes of *rosin* were much employed by the late Dr. Parrish, of this city; he directed it to be put on a hot shovel, or coals, and allow the patient gradually to inhale it. To some persons it is very agreeable, while the lungs of others cannot tolerate it.

In some cases of croup, the inhalation of ether or Hoffman's anodyne, will often procure prompt relief, and gain time for the application of general remedies.

Chlorine gas has also been much used by inhalation, not pure, however, but mixed or diluted with atmospheric air. For this purpose a little acid of any kind may be dropped gently on a mixture of chloride of lime, by which means the chlorine is gradually disengaged, and is inhaled as it rises; or the air of a room may be pervaded with it in like manner. It has been much commended in bronchitis and the kindred affections, but is getting into disuse from its manifest inefficiency.[1]

[1] *Fumigation of Chlorine.*

℞. Sodii Chloridi, ℔ij.
Oxidi Manganesii, ℥v.
Aquæ, ℔j.
Acidi Sulphurici, ℔j.

Mix the salt and manganese, and add at proper intervals the acid and water, mingled. When used in the wards of hospitals or other infected apartments, the patients should be previously removed. For the method of preparing the different chlorides used as disinfecting agents, see *Journal of the Philadelphia College of Pharmacy*, vol. i. No. 4.

CLASS VII.

EMMENAGOGUES.

Emmenagogues are those medicines which promote the menstrual discharge, or restore it when entirely suppressed. Although by some authors the specific action of these medicines on the uterus has been questioned, if not denied, yet by others, of equal authority, it has been fully acknowledged.

It must, however, be observed, that amenorrhœa occurs under opposite states of the system; and when general *debility* appears to be the cause of the local disease, it may be advisable to accompany the emmenagogue with an active course of tonics. While, on the contrary, if the obstruction be the effect of a plethoric habit, bleeding, cathartics, &c., are essential preliminaries to the successful exhibition of a specific remedy.

POWDERS AND PILLS.

Powder of Hiera picra.

℞. Pulveris Aloës et Canellæ, ʒj.
Divide in chartulas vj.—One, three times a day.

Powder of Aloes, Canella Alba, &c.

℞. Pulveris Aloës, ʒjss.
——— Canellæ, gr. xviij.
——— Serpentariæ, gr. vj.—xij.
Misce, divide in pulveres vj. *Signa.*—One, every three or four hours, in sirup.

This compound, another form of the *hiera picra* of the shops, forms a very good purgative, and is usually employed as an emmenagogue.

Powder of Madder.

℞. Pulveris Rubiæ, ℥ss.
Signa.—A small teaspoonful to be taken morning, noon, and night, in sugar and water.

There are three or four qualities of madder, which circumstance may account for its frequent inertness.

Powder with Savin, &c.

℞. Pulveris Sabinæ,
——— Zingiberis, āā ʒj.
——— Potassæ Sulphatis, ʒij.
Fiant pulveres vj. *Signa.*—One to be taken twice a day.

Powder with Savin and Cantharides.

℞. Pulveris Sabinæ, ʒj.
——— Cantharidis, gr. ij.
Misce, et divide in pulveres iv. *Signa.*—One to be taken every night on going to bed, watching its effect.

Powder of Ergot.

℞. Pulveris Ergotæ, ℈ij.
Divide in chartulas iv.—Of which one may be taken morning and night, in sugar and water.

Drs. Chapman and Dorsey have placed this substance under the head of Emmenagogues, where it seems properly to belong.

Powder with Savin and Borax.

℞. Pulveris Sabinæ,
——— Zingiberis, āā gr. vij.
Sodæ Boratis, gr. xv.
Fiat pulvis.

This powder is to be taken twice a day, in amenorrhœa with a languid pulse. THOMSON.

Pills of Myrrh, Sulphate of Iron, &c.

℞. Myrrhæ, ℈ij.
Potassæ Carbonatis, ʒss.
Ferri Sulphatis, ℈ij.
Saponis, ʒss.
Fiat massa, in pilulas xl. dividenda.—Of which two may be taken morning, noon, and night. In suppression of the catamenia.

Compound Pills of Iron.

℞. Myrrhæ (in massâ), ʒij.
Potassæ Carbonatis, ʒj.
Tere simul in pulverem, dein adde—
Pulveris Ferri Sulphatis, ʒj.
Sacchari Communis, ʒj.
Fiat massa, et divide in pilulas lxxx.

No fluid of any kind is to be used, the brown sugar giving a proper consistence.

Two or three pills are given three times a day in amenorrhœa and chlorosis. HULSE.

Hooper's Pills.

℞. Ferri Sulphatis, ʒj.
Pulveris Jalapæ, gr. xv.
——— Aloës et Canellæ, ʒj.
Myrrhæ, gr. viij.
Syrupi, q. s.
Fiat massa, et divide in pilulas l.

Of these pills two or three are taken at bedtime, for several nights successively. They purge smartly, and I presume it is by virtue of this property they operate so beneficially as an emmenagogue. CHAPMAN.

Pills with Digitalis, Myrrh, &c.

℞. Pulveris Digitalis, gr. x.
——— Myrrhæ, gr. xx.
Ferri Sulphatis, gr. x.
Syrupi, q. s.
Fiat massa, et divide in pilulas x.
Signa.—Take one pill three times daily.

Dr. Ashwell recommends these pills in amenorrhœa combined with epilepsy. BRIGHT.

Pills of Aloes, Sulphate of Iron, &c.

℞. Ferri Sulphatis exsiccati, ℈j.
Pulveris Aloës, ℈ij.
——— Caryophylli, gr. v.
Terebinthinæ Venetæ, q. s. ut fiant pilulæ xx. One to be taken three times a day.

DECOCTIONS, INFUSIONS, &c.

Decoction of Seneka.

℞. Radicis Senegæ contusæ, ℥j.
Aquæ, Oj.
Aurantii Corticis, ℥ss.
Let the seneka simmer over a slow fire until the fluid be reduced one-third; add the orange-peel, cover until cool, and then strain.

Dr. Chapman observes: "My rule, in the administration of the medicine in these cases (of amenorrhœa), is to give about four ounces of the decoction, more or less, during the day, according to the circumstances of the case. But at the time when the menstrual effort is expected to be made, and until the discharge is actually induced, I push the dose as far as the stomach will allow, having given as much as two ounces every hour."—*Therapeutics*, vol. ii. p. 38.

Infusion of Ergot.

℞. Ergotæ contusæ, ʒij.
Aquæ bullientis, f℥iv.
Fiat infusum.—To be given by tablespoonfuls, in protracted parturition occasioned by deficiency of contractile power in the uterus.

For the same purpose the powder may also be given in doses of ℈j., as well to assist in arresting uterine hemorrhage as to promote the expulsion of the placenta.

Decoction of Madder.

℞. Pulveris Rubiæ, ℥j.
Aquæ bullientis, Oj.
Simmer for fifteen minutes, and add—
Caryophylli contusi, ʒj.
Signa.—When cool, strain and give a wineglassful every three hours, a short time before the expected return of the menstrual discharge.—See *Dewees on Females*, p. 74.

Solution of Iodide of Potassium.

℞. Potassii Iodidi, ʒj.
Aquæ destillatæ, f℥j.
Fiat solutio. *Signa.*—Dose, five to twenty drops.

Injection of Aqua Ammoniæ, &c.

℞. Liquoris Ammoniæ, gtt. xx.
Lactis, f℥j.
Misce. *Signa.*—This quantity to be thrown into the vagina three or four times a day, in amenorrhœa.

Mixture of Camphor, &c.

℞. Camphoræ, ℈j.
Alcoholis, q. s. ut fiat pulvis, dein adde—
Pulveris Acaciæ, ℥j.
Sacchari, ℥j.
Aquæ Cinnamomi, f℥j.
Fiat mistura.

This mixture would more properly appear under the head of Narcotics, but as Dr. Dewees considers it particularly efficacious in dysmenorrhœa, we have given it a place with Emmenagogues. He directs "one-half the above draught to be given the instant pain is experienced, and if not relieved in an hour or two, the remainder to be given."—*Syst. of Midwifery*, p. 158.

Sirup of Ergot.

℞. Ergotæ, gr. xx.
Extracti Opii, gr. ¾.
Syrupi, f℥viij.
Misce. Dose, two tablespoonfuls *pro re nata*, in engorgement of the uterus. LISFRANC.

Mixture with Cantharides, Hartshorn, &c.

℞. Tincturæ Gentianæ Compositæ, f℥jss.
———– Cantharidis, f℥j.
Spiritûs Ammoniæ Aromatici, f℥iij.
Misce. *Signa.*—Give a teaspoonful three times daily. Useful in chlorosis, and hysterical depression. ASHWELL.

TINCTURES.

Tincture of Ergot.

℞. Ergotæ, ℥ijss.
Alcoholis diluti, Oj.
Macerate for fourteen days, and strain. This is the formula used in Guy's Hospital. Dose, twenty drops to a dram.

Tincture of Black Hellebore.

℞. Tincturæ Hellebori, f℥j.
Signa.—Half a teaspoonful three times a day, gradually increasing the quantity and watching its effect.

Tincture of Black Hellebore, Myrrh, &c.

℞. Tincturæ Hellebori, f℥ss.
——— Myrrhæ, f℥j.
——— Cantharidis, f℥ij.
Fiat mistura.—Dose, thirty drops, three times a day, in a little sugar and water.

Dewees's Tincture of Guaiacum.

℞. Pulveris Guaiaci, ℥iv.
Sodæ vel Potassæ Carbonatis, ℥iss.
Pulveris Pimentæ, ℥j.
Alcoholis diluti, Oj.
Misce.—"Digest for a few days. The volatile spirit of ammonia to be added *pro re nata*, in the proportion of a dram or two, to every four ounces of tincture."

The above formula is different from that adopted in the Pharmacopœias, for which reason we have inserted it here. Dr. Dewees remarks that, after nearly thirty-five years' experience with this tincture, he has never known it to fail in restoring the *suppressed catamenia*, when the suppression was an *idiopathic disease*. He gives it morning, noon, and night, in doses of a teaspoonful in a little sweetened milk; and sometimes in a little Madeira, Sherry, or Teneriffe wine. It is occasionally necessary to continue the medicine for some weeks, on which occasion, the dose must be judiciously augmented.—*Syst. of Midwifery*, p. 149.

Volatile Tincture of Guaiacum and Copaiba.

℞. Tincturæ Guaiaci Ammoniatæ, f℥j.
Copaibæ, f℥ss.
Misce. *Signa.*—A teaspoonful two or three times a day.

In cases of amenorrhœa connected with general debility.

Saturated Tincture of Iodine.

℞. Iodinii, ℈ij.
Alcoholis, f℥j.
Spiritûs Lavandulæ Compositi, f℥ij.
Fiat tinctura. *Signa.*—From five to ten drops in sweetened water twice a day, gradually increasing it.

We are informed by M. Durand, apothecary of this place, that the above is a saturated tincture. It is prescribed in amenorrhœa, gonorrhœa, leucorrhœa, &c.

From its great activity it requires to be cautiously administered.

Tincture of Cantharides.

℞. Tincturæ Cantharidis, f ℥ss.
Signa.—Take fifteen drops three times a day, in sugar and water.

The late Dr. Dewees was much in the habit of prescribing this article in leucorrhœa, and suppression of the menses; increasing the dose a few drops every third day, until symptoms of strangury were manifested, when he desisted altogether.

Muriated Tincture of Iron, &c.

℞. Tincturæ Ferri Chloridi,
——— Aloës et Myrrhæ, āā f ℥ss.
——— Castorei, f ℥ij.
Misce. *Signa.*—Take ten to thirty drops three times a day in a wineglassful of cold chamomile tea.

Tincture of Hiera Picra.

℞. Pulveris Aloës et Canellæ, ℥jss.
Spiritûs Vini Gallici, Oj.
Macera per dies decem et cola.
Signa.—A teaspoonful may be taken three times a day in sugar and water.

A popular and most efficient remedy in amenorrhœa.

Compound Tincture of Aloes.

℞. Tincturæ Aloës et Myrrhæ, f ℥j.
Dose, a teaspoonful *pro re nata.*

Emmenagogue Suppository.

℞. Olei Cacao, ℥ij.
Pulveris Aloës, gr. ij.
Castorei, gr. viij.
Pulveris Assafœtidæ, gr. viij.
Fiat suppositorium.
One to be employed daily for several days at the expected period of the menses. RICHARD.

CLASS VIII.

ANTHELMINTICS.

Anthelmintics are medicines employed to destroy and bring away worms from the alimentary canal. They are also termed Vermifuges.

The only unequivocal proof of the existence of worms in the alimentary canal is the ejection of some of them *per anum*, or, as sometimes happens, by the mouth. When, in such cases, vermifuges are resorted to, they must be persevered in for several days, with the occasional intervention of an active cathartic.

POWDERS AND PILLS.

Calomel with Gamboge.

℞. Hydrargyri Chloridi Mitis, gr. v.
Pulveris Gambogiæ, gr. iij. vel vj.
Misce.—For an adult. To be taken in sirup early in the morning.

Gamboge is sometimes given in doses of fifteen or twenty grains for the tape-worm, and is highly spoken of in such cases.

Calomel with Pink-root.

℞. Hydrargyri Chloridi Mitis, gr. iv.
Pulveris Spigeliæ, gr. x.
Misce. *Signa.*—To be taken two mornings in succession, and on the afternoon of the second day, followed by a dose of castor-oil, or senna and manna.—For children upwards of four years old.

Pink-root with Savine, &c.

℞. Pulveris Spigeliæ,
——— Sennæ, āā ℈ij.
——— Sabinæ, gr. xij.
Fiant chartulæ vj.—One every morning till three are taken, then give a dose of castor-oil; if the effect is not produced, the remainder may be exhibited after the same manner.

Common Salt with Cochineal.

℞. Sodii Chloridi, ʒiij.
Cocci pulverizati, gr. xv.
Fiant pulveres vj. One every morning, following the last dose with some purgative medicine.

Dr. Rush speaks in high terms of this preparation.

Powder of Santonine.

℞. Santonin, gr. vj.
Sacchari Lactis, gr. xv.
Misce, et divide in pulveres vj.
Signa.—Give one powder night and morning to a child five years old, for lumbrici.

"In many cases the worms are passed, says Dr. Wells, on the following morning, but not unfrequently it is necessary to give a second dose on the succeeding evening."

A case of poisoning from three grains in two doses, occurred in a child four years old. (*N. Y. Journ. Pharmacy*, vol. i. p. 16.) Hence, it is necessary to exercise much caution in administering this powerful medicine. EDITOR.

Powder of Male Fern.

℞. Pulveris Filicis Maris, ℥j.

The following is Nouffer's plan of treating cases of tape-worm:—

"Give of the powder of the Male Fern root, from one to three drams, in a large cupful of any distilled water, early in the morning. If the stomach should reject it, the powder must be repeated again, as soon as the sickness has gone off, in the same quantity. When it has been upon the stomach about two hours, a strong cathartic bolus made of calomel and gamboge (eight or ten grs. of the last, and five or six grs. of the first) must be taken, and worked off with a draught of green tea every now and then; and its operation may be still farther promoted, if necessary, by half an ounce, or ℥vj. of salts, dis-

solved in warm water. Till the worm comes away, which generally happens on the same day, the patient is to take nothing but broth. If, however, the worm should not be discharged, either wholly or in part, the powder is to be repeated with the same regimen the next day."

It has been suggested, and with some probability, that the purge directed to follow this medicine is the most efficient of the two.

To avoid the large doses necessarily given when the powder is used, an ethereal extract has been prepared, which represents all the virtues of the root in a small bulk. It is generally called the oil of fern (*Oleum Filicis Maris*), and is given in the dose of fifteen to twenty grains. It is made by exhausting ℥j. of the freshly dried root by f℥viij. of ether, macerating, and distilling off the ether.—Dunglison, *New Rem.* p. 382, 6th ed.

Oil, or Extract of Fern.

℞. Olei Filicis Maris, ℥ss.
Mellis Rosæ, ℥ss.
Misce. *Signa.*—Take one-half at bedtime, and the remainder early in the morning, on an empty stomach.

If the worm does not come away in 6 or 8 hours after the last dose, administer some mild purgative. Radius.

Carbonate of Iron.

℞. Ferri Subcarbonatis, ℥j.
Divide in chartulas iij. One powder to be taken before breakfast.

Of this remedy, the late Professor Rush had a very favorable opinion. He gave it in doses of from 5 gr. to ℥ss. to children of from one year old to ten, and sometimes in half-ounce doses, with safety and success. It is chiefly used in tape-worm.—See *Observ. and Inquiries*, p. 243.

Pills of Venice Turpentine, Calomel, &c.

℞. Terebinthinæ Venetæ, ℥j.
Extracti Hyoscyami, gr. iv.
Hydrargyri Chloridi Mitis, gr. viij.
Fiat massa, et divide in pilulas singulas, gr. ij.
Of these, four are to be taken every three hours, and during the entire period, the patient is to take only weak broth, tea, or coffee.

They are strongly recommended by some of the German practitioners in tape-worm.

INFUSIONS, DECOCTIONS, &c.

Infusion of Pink-root, &c., vulgo, Worm-tea.

℞. Spigeliæ, ℥ss.
Sennæ, ℥ij.
Mannæ, ℥j.
Sabinæ, ℈ij.
Fœniculi, ℥ij.
Aquæ bullientis, Oj.
Fiat infusum. Dose, a tablespoonful three times daily for three days, for a child four or five years old. If it purge too actively, it should be discontinued.

Infusion of Pink-root.

℞. Spigeliæ, ℥j.
Aquæ bullientis, Oj.
Fiat infusum. Of which a child may take a tablespoonful at a dose; an adult from ℥j. to ℥iv.

The spigelia sometimes produces violent effects in children, whence the necessity of caution in its use.

Decoction of the Bark of Pomegranate Root.

℞. Granati Radicis Corticis, ℥jss.
Aquæ, Ojss.
To be boiled down to one-half, and given in doses of an ounce several times a day.

"The efficacy of the bark of the root of the pomegranate, as a remedy for the tape-worm, is now well established in India."
PARIS, vol. ii. p. 173.

Infusion of Kousso.

℞. Florum Brayeræ Anthelminticæ, ℥ss.
Aquæ Bullientis, f℥x.
Macera per horam dimidiam. *Signa.*—The tea and flowers constitute a full dose. To be used for tape-worm.

The only preparation necessary is, that the last meal of the preceding evening should be slight. The previous evacuation of the bowels by a mild purgative or a lavement, is also desirable. The mode of administering the remedy is as follows: "A little lemon-juice is to be swallowed, and the infusion being stirred up, the whole is taken, liquid and powder, at two or three draughts, at short intervals, being washed down by cold

water and lemon-juice. To promote the operation, tea (without sugar or milk) may be taken. In three or four hours, if the remedy has not operated, a dose of castor-oil, or a saline purgative, should be administered." JON. PEREIRA.

ELECTUARIES, MIXTURES, &c.

Tin Electuary.

℞. Pulveris Stanni, ʒvj. vel ℥j.
Sacchari Fæcis, vel Syrupi, f℥iv.
Misce.—Two or three tablespoonfuls may be given early in the morning; to be repeated until the whole be taken, and then followed by an active cathartic.

The efficacy of this substance is said to be increased by combination with sulphur, by which means sulphuretted hydrogen is generated, and the worm destroyed by the offensive gas. Larger doses are sometimes prescribed.

Cowhage Electuary.

℞. Spicularum Mucunæ, ʒj.
Mellis liquidi, q. s. ut fiat electuarium. Dose, a teaspoonful to a child two or three years old; to be given before breakfast in the mornings of three successive days, and then followed by a brisk cathartic. In lumbrici.

Bolus with Calomel, Semen Contra, and Camphor.

℞. Hydrargyri Chloridi Mitis, gr. ij.
Pulveris Artemisiæ Santonicæ, gr. viij.
Camphoræ, gr. ij. ad vj.
Syrupi, q. s. ut fiat bolus.
To be repeated *pro re nata* in children of four or six years of age.
RATIER'S *Formulary.*

Mixture with Oil of Wormseed.

℞. Olei Chenopodii, f℥jss.
—— Ricini, ℥iij.
—— Anisi, gtt. x.
Misce, et adde—
Syrupi Rhei vel Sennæ, f℥j.
Fiat mistura. *Signa.*—Shake the bottle well before using. Give a teaspoonful night and morning to a child two years old.

Mixture of Wormseed Oil.

℞. Olei Chenopodii, f℥j.
Sacchari,
Acaciæ, āā ℥iss.
Aquæ Menthæ Piperitæ, f℥ijss.
Misce, secundum artem. A teaspoonful of this preparation may be given four times a day for two days in succession, and then purged off with castor-oil or salts. For children of three to eight years old.

This is a vermifuge of considerable reputation in this country. It is generally used in *lumbrici* and *ascarides;* though we have heard of its having been successfully given for *tænia*, but in much larger doses.

Olive Oil and Ammonia.

℞. Olei Olivæ, f℥viij.
Spiritûs Ammoniæ Aromatici, f℥ij.
Dose, three tablespoonfuls night and morning.

This mixture is highly spoken of by some authors, and may be given in much larger quantities; if it does not purge, it should be followed by some aloetic or other cathartic preparation.

Extract of Pink-root and Senna.

℞. Extracti Spigeliæ et Sennæ Fluidi, f℥ij.
Signa.—Give a child two years old a teaspoonful night and morning, until purging takes place.

This preparation, originally devised by Prof. Procter, has been used successfully in Philadelphia, for the last ten years, in the treatment of lumbrici.

Spirit of Turpentine

Is recommended for tape-worm, in doses of ℥ss. to ℥ij. daily, taken in honey.

Dr. Chapman speaks highly of this remedy; but it sometimes causes strangury, and requires caution.

Spirit of Turpentine, Ether, &c.

℞. Olei Terebinthinæ, f℥ss.
Ætheris, f℥ij.
Pulveris Acaciæ, ℥ss.
Aquæ, Oj.
Misce. *Signa.*—Two tablespoonfuls to be taken morning and evening. In tænia. DR. FRANK.

The effect of turpentine requires attention, for in some constitutions it causes violent strangury, in defiance of every precaution. Patients should be put on their guard against this contingency.

CLYSTERS.

Aloetic Enema.

℞. Aloës, ʒj. vel ij.
Lactis, Oj.
Fiat enema.—The half of this may be given to a child eight or ten years old. In ascarides.

Enema of Camphor and Sweet Oil.

℞. Camphoræ, ʒj.
Olei Olivæ, ℥ij.
Misce pro enemate.

This preparation is particularly adapted to *ascarides*, and should be freely thrown up the rectum for three or four successive nights. No remedy is more effectual than this in relieving the intolerable itching caused by those worms.

Enemata are the most certain of all remedies in *ascarides;* they may be made of various substances, such as solution of assafetida, of common salt, hepar sulphuris, pure olive oil, soap, aloes, &c. &c. For children, ʒss. of aloes should be dissolved in half a gill of water; to this add a tablespoonful of sweet oil, and administer the half of the mixture on going to bed. The other half the next night, if necessary.

CLASS IX.

STIMULANTS.

In the use of stimulants, it is for the most part advisable to begin with small doses, and augment them as circumstances may require. There are cases, however, in which it is necessary to give them plentifully *ab initio*.

It will be often requisite to change not only the stimulating substance, but the part of the body to which it is applied; thus, when the stomach fails, the rectum and skin may be acted upon with advantage.

PILLS, POWDERS, &c.

Pills of Camphor, Cantharides, &c.

℞. Pulveris Cantharidis, gr. xviij.
——— Opii,
——— Camphoræ, āā gr. xxxvj.
Confectionis Rosæ, q. s.
Ut fiant pilulæ xxxvj.—Of which one may be taken every night on going to bed. In impotency from general debility.

Pills of Turpentine and Guaiacum.

℞. Pulveris Guaiaci, ʒj.
Terebinthinæ Venetæ, q. s.
Ut fiant pilulæ xv. *Signa.*—One, three times a day.

These pills have a powerful effect upon the urinary organs. They are employed in gleet and leucorrhœa, but frequently produce strangury.

Pills of Cayenne Pepper.

℞. Pulveris Capsici, ʒj.
Micæ Panis,
Aquæ destillatæ, āā q. s.
Ut fiant pilulæ xij. *Signa.*—One, three or four times a day. In debility of the stomach, from intemperance.

Aromatic Pills.

℞. Ammoniæ Carbonatis, } āā ℈j.
Capsici,
Caryophylli,
Macis,
Olei Cari, gtt. v.
Extracti Gentianæ, gr. xij.
Syrupi, q. s.
Ut fiant pilulæ xx.—One every two hours in gout of the stomach. Dr. Parrish.

Antiseptic Pills.

℞. Camphoræ,
Potassæ Nitratis,
Pulveris Acaciæ, āā ℈j.
Fiat massa, in pilulas xv. dividenda.
Signa.—Dose, two pills every hour or two hours.

Creasote Pills.

℞. Creasoti, gtt. x.
Pulveris Rhei, ℈j.
Extracti Gentianæ, gr. x.
Fiat massa in pilulas x. dividenda.
Signa.—Take one pill three times daily.

Pills of Valerianate of Quinia.

℞. Quinæ Valerianatis, *Dub.* gr. xij.
Pulveris Tragacanthæ, gr. vj.
Aquæ, q. s. ut fiat massa in pilulas viij. dividenda.
Signa.—Give one pill every hour or two in hemicrania.
Editor.

MIXTURES AND INFUSIONS.

Mixture of Carbonate of Ammonia, &c.

℞. Ammoniæ Carbonatis, ʒiss.
Pulveris Sacchari,
——— Acaciæ, āā ʒiss.
Spiritûs Lavandulæ Compositi, f ʒij.
Aquæ destillatæ, vel Menthæ Viridis, f ℥iv.
Fiat mistura. *Signa.*—A tablespoonful for a dose, every two or three hours. If desirable, tinct. opii, gtt. xl. vel l. may be added to the mixture.

Draught with Valerian and Carbonate of Ammonia.

℞. Olei Valerianæ, gtt. iij.
Ammoniæ Carbonatis, gr. x.
Aquæ Cinnamomi, f ℥jss.
Syrupi, f ℥ss.
Fiat haustus.—To be taken every fourth hour. In nervous headache, and depression of spirits.

Mixture with Oil of Turpentine.

℞. Olei Terebinthinæ, gtt. cxx.
Pulveris Acaciæ,
Sacchari, āā ʒij.
Tincturæ Opii, gtt. lx.
Spiritûs Lavandulæ Compositi, f ʒij.
Aquæ Menthæ Viridis, f ℥v.
Fiat mistura. *Signa.*—A tablespoonful for a dose every two hours.

This remedy has gained great reputation in some of the low forms of fever. The author once employed it in the dose prescribed above, in passive hemorrhage from the bowels with complete success; and in hemorrhage from the bladder, resulting from low fever, it has been given with equal advantage.

Draught with Powdered Ginger, &c.

℞. Pulveris Zingiberis, gr. xv.
Ammoniæ Carbonatis, gr. viij.
Spiritûs Cinnamomi, *Lond.* f ʒij.
Aquæ, f ℥iss.
Misce.—To be taken at once. In gout or cramp of the stomach.

Camphor Mixture.

℞. Camphoræ, ʒj.
Pulveris Acaciæ,
———— Sacchari, āā ʒiss.
Tincturæ Opii, gtt. xl.
Aquæ Menthæ Viridis, f ʒiv.
Fiat mistura. *Signa.*—A tablespoonful to be given every two hours.

In reducing camphor to powder (which must be done before it can be formed into a mixture), it is necessary to add to it a few drops of alcohol; or, what is still better, to add f ʒss. of the tincture of myrrh. This renders the camphor much more miscible with water, and does not detract from the value of the preparation.

Camphor in Milk.

℞. Camphoræ, ʒj.
Lactis bullientis, f ʒiv.
Fiat solutio.—This preparation may be taken in the manner directed for the former one.

Camphor Julep.

℞. Camphoræ, ʒj.
Aquæ bullientis, f ʒviij.
Fiat mistura.—This preparation should be set aside in a covered vessel for half an hour, and then strained. A tablespoonful for a dose *pro re nata.*

Many of the older practitioners are in the habit of using a hot camphor tea, in dysmenorrhœa, under an impression that its virtues are better developed. It certainly is stronger hot than cold, but in neither case is it equal to the officinal camphor water (aqua camphoræ) which contains three grains to the fluid-ounce when properly prepared. EDITOR.

Camphor with Myrrh.

℞. Camphoræ pulverizatæ, ʒj.
Pulveris Myrrhæ, ʒss.
———— Sacchari, ʒij.
Aquæ, f ʒvj.
Misce. *Signa.*—A tablespoonful to be given every two hours.

Mixture with Camphor and Chloroform.

℞. Camphoræ, ʒij.
Chloroformi, ʒj.
Vitellus Unius Ovi,
Aquæ, f ʒiv.
Fiat mistura.

This mixture affords us the means of administering large doses of camphor, in as concentrated a form as it would be safe to give a local irritant. It can be diluted with water without precipitation. Each teaspoonful contains four grains.

SMITH.

Camphorated Enema.

℞. Enematis Communis, Oij. (See page 62.)
Camphoræ, ʒij.
Vitellus Unius Ovi.
Misce. One-fourth part to be thrown up the rectum in the treatment of putrid fevers, *pro re nata.* M. CHAUSSIER.

Mixture of Camphorated Opium and Guaiacum.

℞. Tincturæ Opii Camphoratæ,
——— Guaiaci Ammoniatæ, āā f ʒj.
Fiat mistura. *Signa.*—Two teaspoonfuls every two hours. In misplaced and retrocedent gout.

Aromatic Spirit of Hartshorn.

℞. Spiritûs Ammoniæ Aromatiei, f ʒij.
Signa.—Twenty drops to be given in a wineglassful of water, *pro re nata.* In sudden exhaustion from any cause.

Yeast Mixture.

℞. Cerevisiæ Fermenti, f ʒx.
Camphoræ, ʒss.
Spiritûs Ætheris Nitriei, f ʒss.
Fiat mistura. *Signa.*—Take a tablespoonful every hour or two hours.

This was extensively used in the late typhus epidemic in Ireland, as a stimulant and antiseptic, and with the happiest results. LAMPREY.

Substitute for the Fetid Spirits of Ammonia.

℞. Spiritûs Ammoniæ, f ʒj.
Tincturæ Assafœtidæ, f ʒvij.
Misce. *Signa.*—Give a teaspoonful, in sweetened water, every four hours.

An excellent stimulus in nervous debility and hysteria.

Mixture with Dippel's Animal Oil.

℞. Olei Cornu Cervi, f℥j.
Spiritûs Ætheris Compositi, f℥iij.
Misce. *Signa.*—Take twenty or thirty drops every three hours. Used in chorea, catalepsy, &c. RICHTER.

Emulsion of Phosphorus.

℞. Phosphori puri, gr. ij.
Mucilaginis Acaciæ, q. s.
Let these articles be carefully and effectually triturated in a mortar, and add gradually as much distilled water as will make an emulsion of ℥vj.; then add—
Syrupi, f℥j.
Spiritûs Ætheris Compositi, gtt. xxx.
Fiat mistura.—Of which the usual dose is a tablespoonful every two, three, or four hours.

This preparation was originally made by the celebrated Hufeland, and is now taken from Dr. Chapman's *Therapeutics*, p. 176, vol. ii.

As the violence of the remedy, and its very great power, are generally known to physicians, we need hardly repeat the necessity there is for the greatest caution in its administration. The subjoined is one of the many formulæ adopted in Europe.

Lobstein's, Phosphorated Ether.

℞. Phosphori, gr. ij.
Solve in Ætheris, f℥ss.
Tincturæ Olei Menthæ Piperitæ, f℥ss.
Signa.—Take from two to six drops in sugar every three hours.

The bottle should be carefully stoppered, and covered with dark paper. Used in epilepsy, paralysis, and amaurosis.
FOY.

Tincture of Arnica.

℞. Arnicæ Florum, ℥jss.
Alcoholis, Oj.
Macera per dies quatuordecim et cola.

Of this tincture, Mr. Wilde gives fifteen drops in a tablespoonful of the infusion of arnica, and a little of some cordial tincture, three times a day, for the relief of tinnitus aurium. After a few days, the dose should be increased one or two drops daily, until it reaches thirty drops. It is useful as a stimulant in atonic gout. WILDE.

Mixture with Chlorinated Lime.

℞. Calcis Chlorinatæ, ℈j.
Aquæ, f℥iij.
Solve et cola. Dein adde—
Syrupi Zingiberis, f℥j.
Fiat mistura. *Signa.*—Take a tablespoonful every three hours. Chlorinated lime is stimulant and antiseptic, and has been used beneficially as such in typhoid, typhus, and scarlet fevers.

Linctus with Oil of Turpentine.

℞. Olei Terebinthinæ, f℥ij.
Mellis optimi, f℥j.
Fiat linctus.—Dose, a teaspoonful night and morning, with a draught of warm tea. In sciatica.

Infusion of Cayenne Pepper.

℞. Pulveris Capsici, ℥iss.
Aquæ bullientis, Oss.
Fiat infusum. *Signa.*—A tablespoonful for a dose in severe colic, or gout in the stomach.

Infusion of Cloves.

℞. Caryophylli contusi, ℥j.
Aquæ bullientis, Oss.
Fiat infusum. *Signa.*—To be employed in the same cases, and in similar doses as the former.

Mixture of Cubebs, &c.

℞. Pulveris Cubebæ, ℥ij.
Sodæ Carbonatis, ℥ss.
Mucilaginis Acaciæ, f℥vj.
Aquæ Menthæ Viridis, f℥vj.
Fiat mistura. *Signa.*—Take a tablespoonful every hour and a half.

Mixture of Oxide of Bismuth, Cubebs, &c.

℞. Pulveris Cubebæ, ℥ij.
Bismuthi Subnitratis, ℥ss.
Mucilaginis Acaciæ, f℥ss.
Syrupi, f℥vj.
Aquæ, f℥vj.
Fiat mistura. *Signa.*—Take a tablespoonful four times a day.

We have extracted the two preceding prescriptions from a

paper of Mr. John Fosbroke, surgeon, Chittenham. See *Medical Recorder*, for April, 1825.

They are recommended, with other similar compounds, in various affections of the mucous membranes, viz: of the bowels, bladder, trachea, &c.

Mustard Whey.

℞. Lactis Vaccinæ, Oj.
Sinapis contusæ, ℥j.
Simmer until the caseous part separates, then strain, and add—
Vini Albi, f℥vj.
Signa.—A draught of this whey may be taken every hour or two in low fever and in debilitated stomach.

Wine Whey.

℞. Lactis Vaccinæ, Oss.
Vini Albi, f℥ij. vel f℥iij.
Boil the milk, then add the wine, and strain. Grate a little nutmeg, and sweeten the clear whey to the taste.

There are few mild stimulants more employed, or more useful than wine whey. Dr. Chapman speaks of it as possessing a kindred action with carbonate of ammonia. The dose to be regulated by the circumstances of the case; from four ounces to ten or more during the day.

Mixture with Wine, &c.

℞. Vitellum Unius Ovi,
Olei Cinnamomi, gtt. x.
Misce, et adde—
Vini Albi,
Aquæ Cinnamomi, } āā f℥jss.
Sacchari, ℥j.
Aquæ destillatæ, f℥j.
Fiat mistura. *Signa.*—Give two or three tablespoonfuls, at short intervals, in convalescence from low fevers.

Mixture with Brandy.

℞. Spiritûs Vini Gallici, f℥ij.
Lactis Vaccinæ, f℥iv.
Sacchari, ℥ss.
Myristicæ, ad gustandum.
Signa.—Take a tablespoonful every hour or two in low fevers.

Essences of Ginger.

There are several popular and useful stomachics and stimulants now sold under this title. They are easily prepared by making a saturated tincture of the root, using strong or officinal alcohol, and then carefully concentrating the tincture by means of a water-bath.

The Infusion of Ginger

Is also an excellent stomachic, and may be employed with great benefit in debility of the stomach and bowels.

CLASS X.

NARCOTICS.

Narcotics have been denominated *sedatives*, from their power of diminishing action; *anodynes*, from their capability of alleviating pain; and *hypnotics*, or *soporifics*, from their power of inducing sleep. A few words only will be necessary as general rules for their administration, and any peculiarities that individuals of the class may possess will be noticed under the appropriate prescriptions. It is well known they possess the power of fulfilling two indications; namely, of exciting and depressing the nervous energy.

To obtain the first of these results, it is necessary to begin with small doses, and repeat them frequently; while in order to arrive at the second, a full dose must be given, and not resorted to again for a considerable length of time. We should also bear in mind that the system very soon becomes habituated to their action, and the doses must be continually enlarged when it is necessary to maintain their impression. The difference between the susceptibility to their action when the body is in a morbid or healthy condition, should not be overlooked.

PILLS.

Pills of Opium.

℞. Pulveris Opii, gr. xij.
Saponis, q. s.
Misce, et divide in pilulas xij.—Of which one is the ordinary dose to produce sleep.

In equal weights of powdered and soft opium, the former is much the more powerful, the latter containing a considerable proportion of water. This should be recollected in directing the medicine in the form of pills.

An opium pill that has been made long enough to become perfectly hard and dry, will be retained by an irritable stomach when a fresh one would be rejected.

Pills of Lupulin.

℞. Lupulinæ, ʒss.
Contunde in mortario, et divide in pilulas x.
Signa.—Two pills may be given for a dose, and the quantity doubled if necessary.

This substance, we are told by Dr. Ives, contains all the active properties of the hop. It is slightly narcotic, and is serviceable in irritable stomach, and as a preventive of nocturnal erections in different forms of acute venereal disease.

The lupulin is sometimes administered in powder, with two parts of white sugar.

Pills of Sulphate of Morphia.

℞. Morphiæ Sulphatis, gr. ij.
Confectionis Rosæ, q. s. ut fiant pilulæ xij.
Signa.—One may be given for a dose, *pro re nata.*

One grain of either of the salts of morphia is usually estimated as equal to six of opium; so that a pill of the above prescription will be equivalent to a grain of opium.

The acetate and muriate of morphia are prepared in the same way, and given in the same dose.

Pills of Lactucarium.

℞. Lactucarii, gr. xij.
Confectionis Rosæ, q. s.
Divide in pilulas vj.
Signa.—One for a dose, to be repeated in two hours, if sleep be not procured.

The inspissated juice of the garden lettuce is said to act as a direct sedative, lessening the frequency of the pulse, diminishing the natural heat, and procuring sleep, without inducing the subsequent distressing effects which follow the use of opium.

The *thridace* of the French appears to be prepared by a different process from that employed in the preparation of the British lactucarium. The former is not so highly esteemed in this country as the latter.

Pills of Henbane and Ipecacuanha.

℞. Extracti Hyoscyami, gr. x.
Pulveris Ipecacuanhæ, gr. v.
Misce, et divide in pilulas x.—One every hour or two until relief is procured, watching the effect.

In flatulence and irritability of the bowels.

Pills of Opium, Henbane, &c.

℞. Pulveris Opii, gr. iv.
Extracti Hyoscyami,
——— Conii, āā gr. xv.
Fiat massa, in pilulas x. dividenda.—One every night when an anodyne is required.

Pills of Extract of Henbane.

℞. Extracti Hyoscyami, ℈j.
Divide in pilulas x.—Of which one may be given every four hours, increasing the dose if necessary.

This medicine, which is employed as a substitute for opium, does not constipate the bowels.

Pills of Extract of Stramonium.

℞. Extracti Stramonii Foliorum, ℥ss.
Divide in pilulas xv. *Signa.*—One three times a day.

The powdered leaves are also prescribed in similar doses. The extract of the seeds is given in the dose of a quarter to half a grain.

Opiate Confection.

℞. Confectionis Opii, ℥ss.
To be given for a dose.—One grain of opium is contained in thirty-six grains of the officinal confection.

Pills of Extract of Hemlock.

℞. Extracti Conii, ℥j.
Pulveris Conii, q. s.; ut fiat massa in pilulas xx. dividenda.
One of these pills night and morning, may be taken at the commencement, gradually increasing them to two, three, four, or more, as the patient can bear them.

The efficacy of narcotic plants is influenced by soil, climate, exposure, and cultivation; and the extracts by the season when the plants are gathered, and the mode of preparing them. Physicians would do well therefore to make themselves acquainted with the quality of the article they prescribe, inasmuch as there may be a fatal difference between two parcels of different ages, modes of preparation, &c.

Pills of Camphor.

℞. Camphoræ, ℥ss.
Alcoholis,
Acaciæ, āā q. s.
Ut fiant pilulæ xv.—Dose, a pill every two or three hours.

Pills of Opium, Digitalis, &c.

℞. Pulveris Opii,
——— Digitalis, āā gr. vj.
Confectionis Rosæ, q. s. ut fiant pilulæ xij.
Signa.—One to be taken every four hours. In asthma, &c.

Pills of Extract of Conium and Calomel.

℞. Extracti Conii, ℈ij.
Hydrargyri Chloridi Mitis, gr. xv.
Fiant pilulæ xv. *Signa.*—One three times a day. In pseudo-syphilitic affections.

Pills of Powdered Nux Vomica.

℞. Pulveris Nucis Vomicæ, ℈j.
Confectionis Rosæ, q. s. ut fiant pilulæ x.
Signa.—One to be given two or three times a day, closely watching the effects. In paralysis.

Pills of the Extract of Nux Vomica.

℞. Extracti Nucis Vomicæ, gr. x.
Divide in pilulas xv.—One pill twice a day, gradually augmenting the dose, and watching its effect.

Pills of Strychnia.

℞. Strychniæ, gr. ij.
Confectionis Rosæ, q. s. ut fiant pilulæ xxiv.
Of which one pill may be given once or twice a day, according to the idiosyncrasy of the patient.

Strychnia forms with acids a variety of salts, which are generally very soluble, and for this reason much more active than the alkali uncombined. The commencing dose of the salt should not be greater than that of the alkaloid. It should be borne in mind that the activity of this substance is increased by all acid drinks.—*See* MAGENDIE'S *Formulary*, edit. 5, p. 12.

Pills of Camphor, Assafetida, &c.

℞. Camphoræ in pulverem, ℥ij.
Pulveris Assafœtidæ, ℥ij.
Extracti Belladonnæ, ℈ij.
——— Opii, gr. x.
Fiat massa, in pilulas lx. dividenda. Commence with two pills a day, and gradually increase the quantity to six in the 24 hours. Used in hysteria. DEBREYNE.

Pills with Aconite and Dover's Powder.

℞. Extracti Aconiti, gr. vj.
Pulveris Ipecacuanhæ et Opii, gr. xij.
Syrupi, q. s.
Ut fiat massa, in pilulas vj. dividenda.
Signa.—Take one pill three times a day in chronic rheumatism.

Pills of Digitalin.

℞. Digitalinæ, gr. j.
Sacchari Lactis, gr. lx.
Syrupi, q. s.
Ut fiat massa, in pilulas xl. dividenda.
Signa.—Take one pill twice a day, gradually and carefully increasing the dose, until the peculiar effects of digitalis are developed.

The greatest care should be used in making these pills, to have the digitalin uniformly diffused through the sugar of milk. A safer way of administering it is in the form of solution. (See page 70.)

MIXTURES, TINCTURES, &c.

Opiate Mixture.

℞. Extracti Opii, gr. v.
Sacchari, ʒj.
Aquæ Cinnamomi, fʒvj.
Fiat mistura. *Signa.*—A tablespoonful may be taken every two hours, so that the whole be consumed in twenty-four. In tetanus and colica pictonum.

Anodyne Draught.

℞. Tincturæ Opii, gtt. xv. vel xxv.
Syrupi Papaveris, *Lond.* fʒij.
Spiritûs Cinnamomi, *Lond.* fʒj.
Aquæ destillatæ, fʒiss.
Misce. *Signa.*—Anodyne draught. Laudanum is very disagreeable to some persons; combined as above, the taste is disguised.

Laudanum.

℞. Tincturæ Opii, fʒss.
Signa.—Dose, twenty-five drops.

As the regulation of doses for children is, to the young practitioner, one of the most difficult parts of prescribing, and as laudanum is an article so universally employed in their diseases, we subjoin the following graduated table from Dr. Dorsey's *Syllabus*, page 36, 1817.

For a child at birth, or within a month after	½ to 1 drop.
Under a year old	½ to 2 or 3 drops.
From one to two years of age . . .	1 to 5 "
From two to five " . . .	2 to 8 "
From five to ten " . . .	5 to 15 "
From ten to fifteen " . . .	10 to 20 "
At fifteen years	15 to 20 "
For an adult	25 to 30 "

It is important in the employment of laudanum that it should be a *saturated* tincture and perfectly transparent. For these reasons it should be obtained from the apothecary in small quantities, as it is liable to deposit part of the opium; hence the liquid near the surface is weaker. Infants have been destroyed by the exhibition of *thick laudanum*. Physicians, therefore, should always examine the phial before trusting the nurse to give a dose to a child.

Black Drop.

℞. Aceti Opii, f ℥ss.
Signa.—Give ten drops as a dose.

This preparation is much stronger than laudanum, and has obtained celebrity from the fact that it equally promotes the ends of laudanum without affecting the head and stomach. When it cannot be had, Dr. Chapman states that, by giving the alcoholic tincture of opium in vinegar, we obtain nearly the same results.

Paregoric Elixir.

℞. Tincturæ Opii Camphoratæ, f ℥j.
A teaspoonful of this in a little water is a dose for an adult. It is principally employed as an expectorant.

Sydenham's Laudanum, or Wine of Opium.

℞. Vini Opii, f ℥j.
Signa.—Dose, twenty drops.

Our officinal wine of opium, now so much used as an external application in chronic inflammation of the eyes, differs only from Sydenham's laudanum, in not having an ounce of saffron added to the pint. The other ingredients are the same.

Solution of Sulphate of Morphia.

℞. Morphiæ Sulphatis, gr. j.
Aquæ destillatæ, f ℥j.
Fiat solutio.—Dose, one or two teaspoonfuls.

When morphia and its salts were first introduced, the formulæ given by Magendie were generally adopted, and are still retained in New York, and some other places. These contain sixteen grains of the sulphate or acetate of morphia in a fluid-ounce of water, whereas the officinal solution has but one grain to the ounce. Practitioners settling in that vicinity should avoid confounding the two solutions. EDITOR.

The sulphate of morphia has one superiority over the acetate, namely, that the latter when dissolved in water is decomposed, two salts resulting, the one soluble, the other not.[1] From this objection the sulphate is exempt.

The muriate and nitrate of morphia possess no advantages over the sulphate and acetate.

Codeia.

The French chemists have also discovered in opium a principle allied in its effects to morphia, and called *Codéine.* In dose of a single grain it proves highly anodyne, but distresses the stomach in larger doses. Its salts are given in somewhat smaller quantities. MAGENDIE, *9vme ed.* p. 80.

Tincture of Opium and Oil of Turpentine.

℞. Tincturæ Opii, f ℥j.
Olei Terebinthinæ, f ℥ss.
Misce. *Signa.*—A teaspoonful diluted every hour or two may be given in delirium tremens, but even here its effect must be closely watched.

The turpentine may be added or omitted at the discretion of the physician, and the quantity of laudanum in some cases may be doubled. We have successfully given two teaspoonfuls every hour until ℥ij. of laudanum were taken. We do not believe in the doctrine, however, that opium in this disease may be administered almost *ad libitum* without danger. On the contrary, we feel assured that death has been caused by its excessive use in delirium tremens. S. G. MORTON.

[1] This difficulty, however, is obviated by the addition of acetic acid to convert the insoluble morphia present into an acetate. EDITOR.

Tincture of Lupulin.

℞. Lupulinæ puræ, ℥j.
Alcoholis, f℥ij.

Digest for six days in a close vessel. Strain, filter, and add a sufficient quantity of alcohol to make ℥iij. of the tincture. Of this, from ℥ss. to ℥ij. may be taken for a dose, commencing with the smaller quantity.

Tincture of Hops.

℞. Tincturæ Humuli, f℥j.

Signa.—Of this, a teaspoonful may be taken every two hours, as a narcotic in cases where opium is inadmissible.

Hops are also given in the form of infusion: for which see Tonics. Inclosed in a bag, they have acquired some celebrity as a pillow.

Camphor and Hoffman's Anodyne.

℞. Aquæ Camphoræ, f℥iv.
Spiritûs Ætheris Compositi, f℥ij.

Misce.—Dose, a dessertspoonful every hour or two hours diluted. In nervous affections, and sleeplessness of fever.

Tincture of Digitalis.

℞. Tincturæ Digitalis, f℥ij.

Of which ten drops may be given at first twice or three times a day, increasing the quantity gradually as the system becomes accustomed to it. The peculiar character of this remedy should induce caution in giving it.

Hemlock Mixture.

℞. Extracti Conii, ℥ss.
Syrupi Papaveris, *Lond.* f℥j.
Aquæ, f℥vij.

Misce.—A tablespoonful three or four times a day for a dose.

Tincture of Extract of Nux Vomica.

℞. Extracti Nucis Vomicæ, gr. iij.
Alcoholis, f℥j.

Fiat tinctura.—This tincture to be given in doses of fifteen or twenty drops, in any kind of drink.

This preparation, and the pills made of the resin of nux vomica, have been successfully used in general and local paralysis.

Tincture of Strychnia.

℞. Alcoholis, f ℥j.
Strychniæ, gr. iij.
Fiat tinctura.—This tincture to be given by drops, from six to twenty in draughts of mucilage.

Used for the same purposes as the above.

Strychnia Mixture.

℞. Strychniæ, gr. j.
Acidi Acetici, gtt. ij.
Sacchari, ℥ij.
Aquæ destillatæ, f ℥ij.
Fiat solutio. *Signa.*—A teaspoonful morning and evening.

Solution of Extract of Belladonna.

℞. Extracti Belladonnæ, gr. iij.
Aquæ Cinnamomi, f ℥j.
Fiat solutio. *Signa.*—Two or three drops twice or thrice a day, to a child under a year old, and an additional drop for every additional year.

Belladonna has been recently used in Germany as a preventive of scarlatina. The extract, if given for several days, produces a scarlet eruption and affection of the fauces, analogous to those of scarlatina; and it is pretended that this factitious disease is sufficient to prevent the access of the real one.

Mixture with Magnesia, Assafetida, &c.

℞. Magnesiæ Carbonatis, ℥ss.
Tincturæ Assafœtidæ, gtt. lx.
——— Opii, gtt. xx.
Sacchari, ℥j.
Aquæ destillatæ, f ℥j.
Misce et fiat mistura.—Twenty-five drops may be given to an infant of two or four weeks old; in flatulent colic, diarrhœa, &c.

This preparation was strongly recommended and much employed by the late Dr. Dewees of this city.

If the *calcined* magnesia be used, it unites with the resin of the assafetida, forms an almost solid mass at the bottom of the vessel, and defeats the object of the prescription.

Tincture of Hemp.

℞. Extracti Cannabis, gr. xxiv.
Alcoholis, f ℥j.
Fiat solutio. *Signa.*—Take ten drops every two hours.

The above is the formula of Dr. O'Shaughnessy, of Calcutta,

who has had much experience with the gunjah, or Indian hemp. In cholera, he gave ten drops every half hour to check the vomiting; in tetanus, a dram of the tincture, with the same interval, until the paroxysms ceased, or catalepsy was induced; and in acute rheumatism, twenty drops until symptoms of intoxication were manifested.

Dr. B. H. Coates has tried it in a case of tedious labor, in which it seemed to have the effect of restoring the uterine contractions by acting "as musk, castor, or assafetida frequently do in other hollow viscera, by restraining excessive and irregular contractions, and enabling the contracting organ to combine its efforts more in conformity to a healthy order, and a useful tendency and result."

The great uncertainty in the strength of the extract heretofore imported, has interfered with its introduction into practice; but there is now (1853) to be had in Philadelphia, an extract which is decidedly narcotic in the dose of a quarter to half a grain. EDITOR.

Mixture with Oil of Bitter Almonds.

℞. Olei Amygdalæ Amaræ, gtt. xx.
Alcoholis, f℥iij.
Fiat solutio. *Signa.*—Take ten drops four times daily.

Used in neuralgia, especially tic douloureux. HORN.

CLYSTERS AND SUPPOSITORIES.

Opium Enema.

℞. Pulveris Opii, gr. ij.
Mucilaginis Acaciæ, f℥ss.
Lactis tepifacti, f℥ij.
Misce pro enemate.

Opium Enema.

℞. Pulveris Opii, gr. iij. vel iv.
Adipis, ℥j.
Melt them together with a gentle heat, and when of a proper warmth, inject the mixture with a small syringe.

Laudanum Enema.

℞. Tincturæ Opii, gtt. l.
Infusi Lini, f℥ij. vel f℥iv.
Fiat enema.

It is generally supposed that three times the quantity of a medicine may be thrown into the rectum that may be taken into the stomach. As regards opium, however, we believe it to be too much, particularly in children. Indeed, it is an unsettled point in therapeutics, whether remedies act most powerfully upon the rectum or the stomach.

Suppository of Opium.

℞. Pulveris Opii, gr. ij.
Saponis, gr. iv.
Misce bene.—Introduce into the rectum when an enema cannot be administered.

Suppository of Opium and Rhatany.

℞. Olei Cacao, ʒj.
Extracti Krameriæ, ϑij.
Pulveris Opii, gr. v.
Misce secundem artem, et fiant suppositoria x. PANCOAST.

Suppository of Hemlock.

℞. Ceræ Albæ, gr. xv.
Olei Cacao, ʒj.
Extracti Conii, gr. x.
Misce, s. a. The extract should be softened and added to the other ingredients as they begin to cool.

EXTERNAL USE OF NARCOTICS.

Solution of the Extract of Belladonna.

℞. Extracti Belladonnæ, ϑj.
Aquæ destillatæ, fʒiij.
Fiat solutio. *Signa.*—To be applied to the eye in cataract, for the purpose of dilating the pupil and exposing the lens.

Solution of Atropia.

℞. Atropiæ, gr. ij.
Alcoholis, fʒj.
Aquæ destillatæ, fʒvij.
Fiat solutio. *Signa.*—Let a drop fall into the eye to dilate the pupil.

This is equally efficacious in its action, and much more elegant, than the ordinary preparations of belladonna.—DUNGLISON, *New Remedies*, 6th ed. p. 114. W. W. COOPER.

For internal use, ten drops of this solution represent one-thirtieth of a grain of the alkaloid.

Solution of the Extract of Stramonium Seeds.

This may be made of the same strength, and be used for dilating the pupil in the same way, as the solution of the extract of belladonna.

Solution of Opium in Lime-water, &c.

℞. Extracti Opii, gr. j.
Liquoris Calcis,
Olei Amygdalæ, āā f℥iij.
Fiat mistura.—Recommended by Dr. Sibergundi of Dorsten, in the treatment of sore nipples. It is to be applied to the parts on dossils of lint.

Infusion of Hemlock.

℞. Conii, ℥ss.
Aquæ bullientis, Oj.
Fiat infusum et cola.—To be applied as a wash to cancerous and scirrhous ulcers.

A cataplasm is also employed for the same purpose, made by mixing the powdered leaves with bread and water poultice.

Infusion of Henbane.

℞. Foliorum Hyoscyami, ℥ss.
Aquæ bullientis, Oj.
Fiat infusum.—Employed as an external application to cancerous, scrofulous, and other indolent ulcers.

Decoction of Stramonium in Milk.

℞. Foliorum Stramonii, ℥ij.
Lactis recentis, Ojss.
Boil to a pint and strain. For gouty, rheumatic, and other painful swellings.

Ointment of Belladonna.

℞. Extracti Belladonnæ, ℥ij.
Aquæ destillatæ, f℥ij.
Adipis, ℥ij.
Fiat unguentum.—A portion to be applied to the neck of the uterus in rigidity of that part occasioned by disease, or previous to delivery. It is said to act on the same principle as it does in dilating the iris. The application to be made for some time by means of a syringe with a wide mouth.

M. Chaussier.

Plaster of Opium, &c.

℞. Opii,
Camphoræ, āā ʒss.
Emplastri Plumbi, ʒij.
Melt the plaster, and having previously powdered the other articles, mix them gradually. For local pains.

Plaster of Opium, &c.

℞. Pulveris Opii,
——— Camphoræ,
——— Saponis, āā ʒj.
Tincturæ Opii, q. s. ut fiat emplastrum.

This plaster is employed in the same cases as the preceding one. Another, and the most common plan, is to spread theriaca andromachi[1] on leather of the size required, and cover it with powdered opium, sprinkling a little laudanum to promote its adhesion.

Plaster of Opium and Camphor.

℞. Pulveris Opii, ℈ij.
Camphoræ, ʒss.
Picis Burgundicæ,
Emplastri Plumbi, āā q. s. ut fiat emplastrum.

This plaster is highly recommended in neuralgia.

GRAVES.

Liniment of Belladonna, Cherry Laurel, &c.

℞. Extracti Belladonnæ, ℈ij.
Solve in—
Aquæ Lauro Cerasi, *Ed.* f ʒij.
Dein adde—
Ætheris, f ʒj.
Misce. *Signa.*—Rub the liniment on the part, and apply flannels moistened with it.

Useful in neuralgia, in gouty and rheumatic pains, and for gathered breasts. RANQUE.

[1] The original Theriaca Andromachi is composed of seventy-two ingredients, pulverized and rubbed up with honey into an electuary. A preparation bearing the same name, and used for the same purposes, is now made in a much less elaborate way. The word *Theriaca* is, at the present day, applied to any coarse sirup, as treacle or molasses.

Camphor and Chloroform Liniment.

℞. Camphoræ, ℥jss.
Chloroformi, f℥ij.
Olei Olivæ, f℥ij.
Fiat linimentum.

Useful in rheumatic and neuralgic affections.

W. B. Price.

CLASS XI.

ANTISPASMODICS.

ANTISPASMODICS are those medicines which allay spasm, and compose the irregular actions of the nervous system. Some of the most powerful of them are derived from the class of Narcotics.

Pills of Assafetida and Soap.

℞. Assafœtidæ, ʒj.
Saponis, gr. x.
Aquæ, q. s. ut fiant pilulæ xx.
Two or four of these pills may be taken for a dose, and repeated *pro re nata.*
Pilulæ Aloës et Assafœtidæ,
——— Galbani Compositæ,
May be given in the same doses as those made with soap only.

Opium Pills.

As under Narcotics. (Page 133.)

Pills with Castor and Salt of Amber.

℞. Castorei, ʒj.
Acidi Succinici, ʒss.
Extracti Gentianæ, q. s. ut fiant pilulæ xxiv.
Dose, three pills night and morning. In hysteria.

Pills of Musk, Camphor, &c.

℞. Moschi, ℈ss.
Camphoræ, ℈j.
Ammoniaci, ℈ij.
Opii, gr. iv.
Misce, et fiant pilulæ singulæ gr. iv.
Signa.—The dose may be four or five in the twenty-four hours. In nervous diseases. M. A. RICHARD.

Pills of Valerianate of Zinc.

℞. Zinci Valerianatis, gr. xij.
Confectionis Rosæ, q. s.
Ut fiat massa in pilulas xij. dividenda.
Signa.—Give one pill every three hours.

Used in neuralgia, and anomalous nervous affections.

Bolus with Valerian and Rust of Iron.

℞. Pulveris Valerianæ, ʒj.
Ferri Subcarbonatis, ℈ss.
Mucilaginis Acaciæ, q. s. ut fiat bolus.
One, three times a day.

Bolus with Musk and Camphor.

℞. Camphoræ, gr. v.
Moschi, gr. v. vel x.
Syrupi, q. s. ut fiat bolus.
Signa.—To be taken at once.

This is a full dose, which, however, can be readily modified by the practitioner.

To confine the aroma of musk, whether in the form of pills or otherwise, it should always be kept in phials.

Bolus with Musk and Carbonate of Ammonia.

℞. Moschi,
Ammoniæ Carbonatis, āā ℈ss.
Confectionis Rosæ, q. s. ut fiat bolus.
To be taken every third hour.

In mortification accompanied with spasmodic action.

Musk Mixture.

℞. Moschi optimi, ʒij.
Sacchari, ʒj.
Pulveris Acaciæ, ʒj.
Aquæ destillatæ, f ʒvj.
Fiat mistura. *Signa.*—A tablespoonful to be given every hour or two hours.

Mixture with Musk, &c.

℞. Misturæ Moschatæ, f ʒvj. (See preceding formula.)
Tincturæ Opii Camphoratæ, f ʒss.
——— Valerianæ Ammoniatæ, fʒj.
Misce. *Signa.*—A teaspoonful three or four times a day. For children in pertussis.

Tincture of Assafetida, Castor, &c.

℞. Tincturæ Assafœtidæ,
——— Castorei, āā f℥j.
Spiritûs Ammoniæ Aromatici, f℥j.
Misce.—A teaspoonful may be taken in a glass of sweetened water for a dose.

Hoffman's Anodyne and Laudanum.

℞. Spiritûs Ætheris Compositi, f℥iij.
Tincturæ Opii, gtt. lxxx.
Aquæ Cinnamomi, f℥vj.
Fiat mistura. *Signa.*—A tablespoonful every one or two hours. In hysteria, &c.

Mixture with Assafetida, &c.

℞. Assafœtidæ, ℥j.
Aquæ Menthæ Piperitæ, f℥iij.
Fiat solutio, et adde—
Tincturæ Valerianæ Ammoniatæ, f℥ij.
——— Castorei, f℥iij.
Ætheris, f℥j.
Signa.—A tablespoonful for a dose, largely diluted, every second hour. In hysteria.

Oil of Valerian with Spirits of Hartshorn.

℞. Olei Valerianæ, gtt. viij.
Spiritûs Ammoniæ Aromatici, f℥j.
Aquæ, f℥iv.
Sacchari, ℥ij.
Misce. *Signa.*—To take a tablespoonful every two or three hours shaking the phial.

Infusion of Valerian.

℞. Valerianæ, ℥j.
Aquæ bullientis, Oj.
Put them into a covered vessel and let them stand until cold.—Dose, a wineglassful every two or three hours.

Tincture of Valerian and Hoffman's Anodyne.

℞. Spiritûs Ætheris Compositi,
Tincturæ Valerianæ, āā f℥j.
Misce. *Signa.*—A teaspoonful for a dose, with water, *pro re nata*, shaking the phial each time.

Mixture with Ether and Laudanum.

℞. Ætheris, f℥ij.
Sacchari,
Acaciæ, āā ℥iss.
Tincturæ Opii, gtt. lx.
Aquæ Cinnamomi, f℥ij.
Misce. *Signa.*—A teaspoonful every hour. In cramp of the stomach, &c.

Ethereal Solution of Chloride of Zinc.

℞. Zinci Chloridi, ℥j.
Alcoholis, f℥ij.
Ætheris, f℥ss.
Solve, post aliquot dies decanta.
Signa.—Take from four to eight drops, twice daily. Used in chorea, epilepsy, and anomalous nervous affections.
HUFELAND.

Embrocation of Oils of Cloves, Amber, &c.

℞. Olei Olivæ, f℥j.
—— Caryophylli,
—— Succini rectificati, āā f℥ss.
Misce. Used as an embrocation in hooping-cough. ROCHE.

Assafetida Enema.

℞. Tincturæ Assafœtidæ, f℥ij.
Decocti Hordei, f℥x. vel f℥xij.
Misce pro enemate.—Tinct. opii may be added *pro re nata.* In hysteria, spasmodic colic, &c.

Musk Enema.

℞. Moschi, gr. xij.
Sacchari, ℈ij.
Spiritûs Ammoniæ, gtt. xxx.
Infusi Lini, f℥iv.
Fiat enema.—For children with convulsions.

CLASS XII.

SIALAGOGUES.

Those medicines which increase the salivary secretion are denominated Sialagogues. In forming these into a *class* in this place, we trespass on the arrangement of Dr. Chapman, but merely from a motive of convenience; for we agree with him that such a class would be better expunged from the Materia Medica, at the same time that it appears necessary to introduce it here, in order to place the mercurial preparations in stronger relief than could otherwise be done.

Pills of Calomel.

℞. Hydrargyri Chloridi Mitis, gr. xij.
Confectionis Rosæ, q. s. ut fiant pilulæ xij.
Signa.—One, morning and evening, and, if necessary, until salivation is excited.

Pills of Corrosive Sublimate.

℞. Hydrargyri Chloridi Corrosivi, gr. v.
Aquæ destillatæ, gtt. xxx. vel xl.
Confectionis Rosæ, ℈j.
Pulveris Glycyrrhizæ, q. s. ut fiant pilulæ xl.
Of which, give one pill three or four times a day. In lues venerea. As salivation rapidly follows the use of corrosive sublimate, its effect must be watched.

Dupuytren's Antisyphilitic Pills.

℞. Hydrargyri Chloridi Corrosivi, gr. ss.
Extracti Cinchonæ, gr. x.
———— Opii, gr. ss.
Pulveris Cinchonæ, q. s.
Ut fiant pilulæ ij.—The two pills may be taken, one in the morning, and the other at night; but as each contains a

quarter of a grain of corrosive sublimate, their action must be very closely watched. M. Dupuytren was partial to these pills in the treatment of syphilis. He thought the opium and cinchona promoted and beneficially modified the action of the sublimate.

Pills with Corrosive Sublimate and Hemlock.

℞. Hydrargyri Chloridi Corrosivi, gr. vj.
Solve in Aquæ destillatæ, q. s. et adde—
Extracti Conii, ʒj.
Pulveris Conii, q. s. ut fiat massa, in pilulas xlviij. dividenda.
Signa.—Give one pill three times a day.

Used in lues venerea.

The effect of the mercurial preparations upon children is sometimes very serious, and even fatal. So powerful upon them is the action of this medicine, that a profuse or even gentle salivation will sometimes produce mortification and destruction to the jaw, cheek, and lip. This, however, does not often happen; but to avoid it the gums should be frequently and carefully examined. It is, nevertheless, a fact, that a disease precisely similar in all its features occasionally attacks children who are badly clothed and fed, though no mercury has been given to them.

Pills of Iodide of Mercury.

℞. Hydrargyri Iodidi, gr. v.
Confectionis Rosæ, q. s.
Ut fiant pilulæ xxx. Each pill will contain the sixth of a grain, which may be given three times a day. Double the quantity (two pills) is sometimes administered at first, but care should be taken not to push it too far.

Compound Pills of Iodide of Mercury.

℞. Hydrargyri Iodidi, gr. ij. vel gr. iij.
Extracti Opii, gr. ij.
Lactucarii, gr. xij.
Guaiaci Resinæ, gr. xxiv.
Misce, et fiant pilulæ xxiv.—Given by M. Ricord in the syphilis of children. He directs one pill for a child six months old, and two, three, or four pills for older children.

DUNGLISON'S *New. Rem.* p. 280.

Pills of Iodide of Mercury.

℞. Hydrargyri Iodidi, gr. j.
Extracti Juniperi vel Glycyrrhizæ, gr. xij.
Pulveris Glycyrrhizæ, q. s.
Ut fiant pilulæ viij.—In adult patients, Magendie directs two to be given morning and evening, to be increased to three or four. DUNGLISON, *ut supra.*

Pills with Calomel, Camphor, &c.

℞. Hydrargyri Chloridi Mitis,
Camphoræ, āā ℈j.
Pulveris Opii, gr. xij.
Syrupi, q. s. ut fiant pilulæ xx.
Signa.—One or two to be taken morning, noon, and night, when calomel by itself causes purging.

Blue Mercurial Pills.

℞. Pilulæ Hydrargyri, ℥ss.
Divide in pilulas x.
Signa.—One may be taken three or four times a day, according to circumstances.

If they should occasion purging, half a grain of opium may be added to each pill. The mass directed in the *American Pharmacopœia* contains one grain of mercury in every three grains.

Pills of the Red Oxide of Mercury.

℞. Hydrargyri Oxidi Rubri, gr. j.
Pulveris Opii, gr. j.
Olei Caryophylli, gtt. ij.
Fiant pilulæ iij. *Signa.*—One pill every night for a week. In venereal cases.

This preparation, in a stronger formula, was used by the celebrated John Hunter; but from its harshness it is now generally superseded by milder medicines.

Solution of Cyanuret of Mercury.

℞. Hydrargyri Cyanureti, gr. viij.
Aquæ, Oj.
Fiat solutio.—This is the *Liqueur anti-syphilitique* of Chaussier, who prefers it to corrosive sublimate on account of its greater solubility and more speedy action. By giving a teaspoonful of the solution, we give one-sixteenth of a grain of the cyanuret, which may be repeated morning, noon, and night, watching its effects.

Powder of Mercury and Chalk with Ipecacuanha.

℞. Hydrargyri cum Cretâ, ℈j.
Pulveris Ipecacuanhæ, ℈ss.
Fiant chartulæ vj. *Signa.*—One night and morning in sirup.

Commended by Dr. Paris, in dyspepsia, in which the biliary secretion is impaired. He prefers it under these circumstances to every other form of mercury.

Masticatory with Pellitory, &c.

℞. Pulveris Pyrethri,
Mastiches, āā ʒj.
Let these be dissolved together by a moderate application of heat; then divide the mass into two equal parts. One of these lumps may be chewed at pleasure. In toothache, and paralytic affections of the tongue.

Mixture of Pellitory, Opium, &c.

℞. Radicis Pyrethri contusæ, ʒss.
Aceti destillati, f ʒvj.
Opii, gr. iij.
Digest in a sand-bath for an hour. *Signa.*—A spoonful to be held in the mouth and frequently renewed. Used in the same cases as the former.

There are several other substances, such as polygala senega, sal ammoniac, nitric acid, &c., which occasionally excite salivation; but they are seldom employed for that purpose.

CLASS XIII.

TONICS.

Tonics are those medicines which impart strength to the system, without subjecting it to any preternatural excitement during their operation. They stimulate, however, in a secondary manner, by gradually increasing the force of the circulation, and by restoring the digestive and secretory functions to a more healthy state. Considerable perseverance is often necessary in giving any one of this class a fair trial; and when one fails, we may often resort with success to another. Much also may sometimes be gained by alternating them.

[It is a well-known fact that some medicines possessed of tonic properties, in small or ordinary doses, have the singular power, when administered more freely, of producing such changes in the economy as to render them applicable to the cure of intermittent disease. The numerous remedies of this class, and their varied modes of exhibition, render it advisable, in a work of this kind, to have some mode of distinguishing them from ordinary tonics. For convenience of reference, therefore, two sub-classes have been made, viz: 1. Of Anti-Intermittents, and 2. Of Ordinary Tonics. Editor.]

Sub-Class I.—ANTI-INTERMITTENTS.

At the head of this class, stand confessedly Peruvian bark and its numerous preparations.

POWDERS AND PILLS.

Powder of Peruvian Bark.

℞. Pulveris Cinchonæ, ℥j.

A dram (about a teaspoonful) to be taken every hour in port-wine, water, or milk, during the intermission of fever.

Some practitioners suspend the bark till within a few hours of the expected paroxysm; and a few others administer it during the hot stage of the disease. It is better to commence immediately after the paroxysm has ended, and give a dose every hour, until the expected period of its return; and to continue it in smaller quantities for several days.

Powder of Peruvian Bark and Cloves.

℞. Pulveris Cinchonæ,
Potassæ Bitartratis, āā ʒj.
Pulveris Caryophylli, ʒj.
Misce.—Dose, a dram and a half every second hour.

This compound will sometimes succeed when the bark alone fails.

Powder of Peruvian Bark and Sulphate of Magnesia.

℞. Pulveris Cinchonæ,
Magnesiæ Sulphatis, āā ʒvj.
Fiat pulvis, et divide in partes æquales iv.—One to be taken every two hours, when purging is required.

Powder of Peruvian Bark, Snake-root, &c.

℞. Pulveris Cinchonæ, ℥ss.
——— Serpentariæ, ʒj.
Sodæ Bicarbonatis, ℈ij.
Divide in chartulas iv. *Signa.*—One to be given every two hours. In obstinate intermittents.

If the bark should purge when given alone, a little opium may be added; when it oppresses the stomach, cloves, as in a former prescription; if costiveness should follow, rhubarb or sulphate of magnesia. The alkali in the above preparation will correct acidity.

Powder of Prussiate of Iron and Guaiacum.

℞. Ferri Ferrocyanureti,
Pulveris Guaiaci, āā ʒj.
Misce, et divide in chartulas xij. *Signa.*—One, three times a day. In obstinate intermittents.

Pills of Sulphate of Quinia.

℞. Pilulæ Quiniæ Sulphatis, No. x.
Signa.—Take two pills every hour, in the apyrexia of intermittent fever, until eight or ten are taken.

The officinal pill contains one grain. Sometimes it is desirable to administer a larger quantity. In such cases, Mr. E. Parrish, of this city, recommends the following form, viz:—

℞. Quiniæ Sulphatis, gr. xx.
Acidi Sulphurici Aromatici, gtt. xv.
"Drop the acid into the sulphate of quinia on a tile or slab, and triturate it with a spatula until it assumes a pilular consistence; then divide into the required number of pills." Made in this way a three-grain pill is not inconveniently large.

In prescribing quinia in the apyrexia of intermittents, and especially in that of neuralgia, it is often necessary to increase the dose beyond the officinal formula. For example, three, four, or five grains may be requisite in those cases in which the neuralgic paroxysms are violent and the intermission short; and this quantity must be repeated every two or three hours, or even every hour. The principal inconveniences arising from the free exhibition of quinia are a painful sense of fulness, noise, and dizziness of the head, constriction of the chest, and purging. The latter may be checked by accompanying each pill with a few drops of laudanum, or by a tablespoonful of the simple aqueous infusion of camphor. If the affection of the head or chest becomes severe, the medicine must be suspended or diminished in quantity.

Pills of Sulphate of Quinia and Carbonate of Ammonia.

℞. Quiniæ Sulphatis, gr. xij.
Ammoniæ Carbonatis, gr. xxiv.
Fiant pilulæ xij. *Signa.*—One every hour, beginning six hours before the expected paroxysm.

These pills are large, but they will act when quinia alone proves unavailing. Quinia may also be combined advantageously with the oil of black pepper, or other essential oils, in case of irritable stomach.

Pills of Sulphate of Cinchonia.

℞. Cinchoniæ Sulphatis, ʒss.
Confectionis Rosæ, q. s.
Ut fiat massa, in pilulas xx. dividenda.
Signa.—Take two pills every hour, in the apyrexia of intermittent fever, until eight are taken.

Experiments made in the Pennsylvania Hospital, prove the sulphate of cinchonia to be an efficient substitute for quinia, in a somewhat larger dose. EDITOR.

Pills of Salicine.

℞. Salicin, gr. xxiv.
Mucilaginis Acaciæ, q. s.
Ut fiant pilulæ viij.—A pill to be taken three or four times a day.

Salicine possesses decided anti-intermittent powers. It has to be used, however, in doses double or treble those of the sulphate of quinia.

Pills of Piperine.

℞. Piperin, gr. xij.
Extracti Gentianæ, q. s. ut fiant pilulæ xij.
One every hour during the apyrexia of fever.

This is one of the preparations lately introduced into practice. It is a white crystalline substance procured from the black pepper, and was thought to possess considerable febrifuge powers. It is stated by Pelletier, however, that its supposed virtues depend only on the acrid concrete oil with which it is associated, and that when perfectly pure it is quite inert.

Pills of Arsenic, &c.

℞. Acidi Arseniosi, gr. j.
Pulveris Opii, gr. iij.
Saponis, gr. viij.
Pulveris Glycyrrhizæ, q. s. ut fiat massa in pilulas xx. dividenda.
Signa.—Give one pill two, three, or four times a day, and increase gradually, according to circumstances, watching the effect. In intermittent fever, and local diseases of an intermittent character.

Pills of Muriate of Ammonia, Arsenic, &c.

℞. Ammoniæ Muriatis, ℥ss.
Pulveris Opii, gr. viij.
Acidi Arseniosi, gr. iv.
Syrupi, q. s. ut fiant pilulæ xxxij.
Of which one may be given three times a day. In intermittent fever.

Each of these pills contains one-eighth of a grain of arsenious acid. The utmost care is requisite in compounding this and all other formulæ for solid arsenic, at the same time that its specific action must be closely watched.

Pills with the Sulphate of Copper.

℞. Cupri Sulphatis, gr. iv.
Extracti Cinchonæ Rubræ, gr. xxxij.
Syrupi, q. s. ut fiat massa, in pilulas xvj. dividenda.
One to be taken three times a day. In obstinate intermittents.

Pills of Extract of Bark, &c.

℞. Extracti Cinchonæ Rubræ,
——— Gentianæ, āā ʒj.
Ferri Sulphatis, ʒss.
Pulveris Myrrhæ, ʒj.
Olei Cari, gtt. x.
Syrupi Zingiberis, q. s. ut fiant pilulæ lx.
Signa.—Three to be taken three times a day.

Pills of Sulphate of Copper and Opium.

℞. Cupri Sulphatis, gr. iij.
Pulveris Opii, gr. iv.
——— Acaciæ, gr. x.
Syrupi, q. s.
Ut fiat massa in pilulas xij. dividenda.
Signa.—Give one pill every three hours in obstinate intermittents. This combination is sometimes serviceable, when quinia fails. CHAPMAN.

Pills of Sulphate of Bebeerine.

℞. Bebeeriæ Sulphatis, ʒij.
Confectionis Rosæ, q. s.
Fiat massa, et divide in pilulas xl.
Signa.—Give two pills every two hours in intermittent fevers.
This article has lately attracted attention in Edinburgh and Paris, and the experiments thus far reported warrant a more extended trial of its powers. EDITOR.

DECOCTIONS AND INFUSIONS.

Decoction of Cinchona.

℞. Cinchonæ Rubræ contusæ, ʒj.
Aquæ, Oj.
Boil for ten minutes—and while hot add—
Serpentariæ Radicis, ʒss.
Aurantii Corticis, ʒij.
And suffer them to infuse for half an hour near the fire in a covered vessel.—Dose, a wineglassful every hour.

If the bark is boiled longer than ten minutes, it deposits extractive and resinous matter, becomes paler, and is less efficient. The last ingredients are directed to be infused because their aromatic properties would be dissipated by decoction.

Decoction of Bark, &c.

℞. Decocti Cinchonæ Rubræ, f℥vj.
Tincturæ Cinchonæ Compositæ, f℥j.
Acidi Sulphurici Aromatici, gtt. x.
Misce.—A tablespoonful may be taken every hour or two hours *pro re nata.*

By this preparation we obtain both the aqueous and alcoholic extracts of the bark.

Infusion of Cinchona with Lime-water.

℞. Pulveris Cinchonæ Rubræ, ℥ij.
Liquoris Calcis, Oij.
Misce, et fiat infusum.

This infusion was formerly much employed. A wineglassful may be taken three or four times per diem, or once every hour, in intermittent and other forms of fever.

Infusion of Bark.

℞. Pulveris Cinchonæ Rubræ, ℥j.
Acidi Sulphurici Aromatici, f℥j.
Aquæ, Oj.
Macera per horas decem et cola.
Signa.—Take a wineglassful every two hours.

This infusion represents the virtues of the bark more fully than either of the foregoing.

Infusion of Boneset.

℞. Eupatorii, ℥j.
Aquæ bullientis, Oj.
Infuse for two hours, and strain.—Of this a wineglassful may be taken every one or two hours, cold. In intermittent fever.

SOLUTIONS, MIXTURES, &c.

Solution of the Sulphate of Quinia.

℞. Quiniæ Sulphatis, gr. viij.
Acidi Sulphurici Aromatici, gtt. x.
Aquæ, f ℥j.
Fiat solutio.
A teaspoonful contains one grain of the salt.

Mixture of Sulphate of Quinia.

℞. Quiniæ Sulphatis, gr. xx.
Acidi Sulphurici, gtt. j.
Sacchari, ℥j.
Aquæ Cinnamomi, f ℥ijss.
Misce. *Signa.*—A teaspoonful for a dose, every hour during the apyrexia of intermittents.

By the addition of sulphuric acid, a super-sulphate of quinia is formed, which is soluble in the aqueous menstruum.

Sulphate of Quinia in Sirup.

℞. Quiniæ Sulphatis, gr. xvj.
Syrupi Zingiberis vel Limonis, f ℥ij.
Misce. *Signa.*—A teaspoonful to be given every hour during the apyrexia.

The French physicians employ a wine and tincture of quinia, which, however, are not superior to the compound used in this country. Both in Europe and America, and especially in Italy, the dose is carried to a much greater extent than we have directed. Eight, ten, fifteen, twenty, and even thirty grains have been given by the Italians, without manifest injury and with successful results. Such doses, however, are seldom admissible in this country; and a cure can generally be accomplished by giving sixteen or twenty grains in twenty-four hours, repeated in half doses for three or four successive days.

Mixture with Ferrocyanate of Quinia.

℞. Quiniæ Ferrocyanatis, gr. iv.
Alcoholis, f ℥j.
Solve et adde—
Aquæ Camphoræ, f ℥vij.
Misce.—This preparation is said to be more active than the sulphate, whence it should be given in less doses; a teaspoonful

of the solution (which will contain half a grain of the salt) may be taken every hour or two hours, according to circumstances. Pills of the ferrocyanate of quinia are prepared with simple mucilage, and administered like the sulphate.

The acetate, citrate, muriate, nitrate, and other salts of quinia, have also been employed in Europe, and occasionally in this country. They possess no advantages over the ordinary preparations, and are given in much the same quantity.

Mixture with Sulphate of Quinia and Tartaric Acid.

℞. Quiniæ Sulphatis, gr. vj.
Acidi Tartarici, gr. iij.
Syrupi, f℥j.
Misce. Dose, a teaspoonful.

The advantages of this preparation, are increased solubility and diminished bitterness of the quinine salt. CASORATI.

Mixture of Sulphate of Quinia and Tannic Acid.

℞. Quiniæ Sulphatis, gr. x.
Acidi Tannici, gr. ij.
Aquæ, f℥vj.
Syrupi Aurantii Corticis, f℥ij.
Misce. *Signa.*—A teaspoonful every two hours.

The object proposed in this formula by Dr. Thomas of Baltimore is to diminish the intense bitterness of the sulphate. This is accomplished by the formation (in part at least) of an insoluble tannate. Whether it is as efficient as a more soluble salt, remains to be proved. R. H. THOMAS.

Mixture with Tincture of Bark and Citrate of Potash.

℞. Succi Limonis, f℥jss.
Potassæ Carbonatis, ℥j.
Tincturæ Cinchonæ, f℥j.
Aquæ Cinnamomi, f℥iij.
Misce. *Signa.*—A tablespoonful every two hours. To promote insensible perspiration while taking the bark.

Sirup of Cinchonia.

℞. Cinchoniæ Sulphatis, gr. xxiv.
Syrupi, Oss.
Fiat mistura.—A tablespoonful will contain a grain and a half of the salt, which is a full dose; to be repeated *pro re nata.*

Mixture of Red Bark in Port Wine, &c.

℞. Pulveris Cinchonæ Rubræ, ℥ss.
Theriacæ Andromachi, ʒj.
Succi Limonis, f℥ij.
Vini Rubri, f℥iv.
Misce. *Signa.*—A wineglassful every second hour during the apyrexia of intermittent fever.

We find this prescription strongly recommended in the *N. A. Medical and Surgical Journal*, by Dr. Meigs.

Mixture with Decoction and Tincture of Bark, &c.

℞. Decocti Cinchonæ Rubræ, f℥iij.
Tincturæ Cinchonæ Compositæ, f℥j.
Pulveris Cinchonæ, ʒij.
Syrupi, f℥ss.
Fiat mistura.—A tablespoonful to be taken every one or two hours during the absence of fever.

Mixture with Extract of Bark, &c.

℞. Extracti Cinchonæ Rubræ, ʒj.
Decocti Cinchonæ Rubræ, f℥vj.
Tincturæ Cardamomi, f℥iv.
Misce.—A tablespoonful for a dose, as above directed.

Mixture of Fowler's Solution, &c.

℞. Liquoris Potassæ Arsenitis, gtt. lx.
Tincturæ Opii, gtt. xxx.
Spiritûs Lavandulæ Compositi, f℥j.
Aquæ Cinnamomi, f℥iv.
Fiat mistura. *Signa.*—A tablespoonful for an adult, a teaspoonful for a child; to be administered every two or three hours, during the apyrexia of intermittents, watching the effect.

Arsenical Mixture.

℞. Liquoris Potassæ Arsenitis, gtt. x.
Aquæ destillatæ, f℥j.
Tincturæ Opii, gtt. x.
Spiritûs Lavandulæ Compositi, f℥ss.
To be taken at a dose.

This mixture is recommended by Dr. Graves, when the simple arsenical solution irritates the stomach.

Enema of Extract of Bark, &c.

℞. Extracti Cinchonæ Rubræ, ʒss.
Aquæ tepidæ, f ʒiv.
Solve; dein adde—
Olei Olivæ, f ʒss.
Tincturæ Opii, gtt. x.
Fiat enema.—To be administered every fourth hour. In intermittents.

When preferred, the powdered bark may be used, say ʒij. mixed with some of the decoction instead of common water. Bark is also employed externally in the form of a waistcoat, worn next the skin. A poultice made by mixing the powder and decoction into a paste, may be applied to the region of the stomach; and lastly, the decoction is used as a semicupium.

Enema of Quinia.

Quinia is employed in enemata, and in this form has an immediate and powerful effect on intermittent fevers. From twelve to twenty grains of the sulphate of quinia, dissolved in a teacupful of flaxseed or other mucilage, may be administered at a time, and repeated in four or six hours.

Sub-Class II.—ORDINARY TONICS.

POWDERS AND PILLS.

Powder of Carbonate of Iron.

℞. Ferri Subcarbonatis, ʒj.
Divide in chartulas vj. *Signa.*—One every six hours in molasses. Chorea, neuralgia, &c.

The dose may be carried as far as ʒss. every four or six hours, but must sometimes be preceded by antiphlogistic treatment.

Powder of Colomba, Ginger, &c.

℞. Pulveris Colombæ,
——— Ferri Subcarbonatis,
——— Rhei,
——— Zingiberis, āā ʒj.
Misce, et fiant pulveres xij.—One to be taken three times a day, in molasses.

Iron by Hydrogen.

℞. Ferri Pulveris, ʒj.
Divide in pulveres xij.
Signa.—Take one powder three times a day in sirup or molasses.

This has been much used in anæmia and chlorosis. It is one of the best preparations of iron.

Powder of Belladonna, Quinia, and Rhubarb.

℞. Pulveris Belladonnæ Radicis, gr. jss.
Quiniæ Muriatis, gr. iv.
Pulveris Rhei, gr. xv.
Misce, et divide in pulveres x.
Signa.—Take one powder morning, noon, and night.

This has been employed successfully in engorgements of the liver and spleen, following intermittent fever. SCHWABE.

Powders with Ipecacuanha, Iron, &c.

℞. Ferri Subcarbonatis, gr. xlviij.
Pulveris Ipecacuanhæ, gr. vj.
Hydrargyri cum Cretâ, gr. xij.
Misce, et divide in pulveres vj.
Signa.—Take one powder twice a day.

Used with decidedly good effect in chlorosis. ASHWELL.

Powder of Angustura Bark.

℞. Pulveris Angusturæ, ℥ss.
Divide in chartulas vj.—Of which one may be taken three or four times a day, in water, or any other vehicle.

This bark has been successfully administered in uterine hemorrhage.

Powder of Colomba and Tartrate of Iron.

℞. Ferri et Potassæ Tartratis, ℈ij.
Pulveris Colombæ, ʒss.
Fiant pulveres iv. *Signa.*—One every three or four hours, in sirup.

Powder with Rust of Iron, &c.

℞. Ferri Sulphatis, ℈ij.
—— Subcarbonatis, ʒiss.
Divide in pulveres xij. *Signa.*—One to be taken morning, noon, and night, in sirup or molasses.

Pills of Protocarbonate of Iron.

℞. Pilulæ Ferri Carbonatis, ʒj.
Ferri Subcarbonatis, q. s.
Ut fiant pilulæ xx. *Signa.*—A pill to be taken morning, noon, and night. This is one of the latest and best formulæ for the chalybeate preparations.

Lactate of Iron.

This salt of iron has lately been introduced into notice, but it has no obvious advantage over the ordinary preparations.—The dose is from gr. v. to ℈j.

Pills of Cinchona and Camphor.

℞. Extracti Cinchonæ Rubræ, ʒj.
———— Opii, gr. j.
Camphoræ, gr. xij.
Pulveris Cinchonæ, q. s.
Ut fiant pilulæ xij.—One to be taken three or four times a day.
RATIER.

Pills of Ammoniuret of Copper.

℞. Cupri Ammoniati, ℈j.
Confectionis Rosæ, q. s. ut fiant pilulæ xl.
Signa.—One or two to be taken at bedtime. In epilepsy.

Febrifuge Bolus.

℞. Pulveris Cinchonæ Rubræ, ʒj.
Ammoniæ Muriatis,
———— Carbonatis, āā gr. xij.
Antimonii et Potassæ Tartratis, gr. xviij.
Syrupi, q. s. ut fiat massa et divide in partes xlviij.
Signa.—One to be taken four times a day, during the apyrexia of fever.
HÔTEL DIEU.

Pills of Ammoniated Iron, &c.

℞. Ferri Ammoniati, ℈j.
Pulveris Rhei, gr. viij.
Confectionis Rosæ, q. s. ut fiat massa in pilulas viij. dividenda.

This formula is recommended in rachitis, and is to be continued with one pill a day for a fortnight, and then intermitted for the same length of time, and again resumed. The object of this direction is to prevent the system from becoming habituated to the medicine.

Pills of Sulphate of Iron and Quinia.

℞. Quiniæ Sulphatis, gr. xij.
Ferri Sulphatis, gr. xxiv.
Pulveris Opii, gr. iij.
Syrupi, q. s.
Misce, et fiant pilulæ xij. *Signa.*—Take two pills three times daily. Used in chlorosis and anæmia. KIRKBY.

Pills of Iron and Quinia.

℞. Pilulæ Ferri Carbonatis, ʒss.
Quiniæ Sulphatis, gr. x.
Fiat massa, et divide in pilulas xv. *Signa.*—One pill every four hours. THOMAS.

Pills of Iron, Red Pepper, &c.

℞. Pulveris Aloës,
Ferri Sulphatis, āā ℈j.
Mastiches, gr. x.
Pulveris Capsici, ℈j.
Syrupi, q. s.
Fiat massa in pilulas xx. dividenda. *Signa.*—Take one pill every four hours. In chlorosis. COPLAND.

Mitchell's Tonic Pills.

℞. Extracti Quassiæ, ʒij.
——— Conii, gr. x.
Ferri Subcarbonatis, gr. x.
Liquoris Potassæ Arsenitis, gtt. x.
Fiat massa in pilulas xl. dividenda. *Signa.*—Take one pill three times daily. J. K. MITCHELL.

Pills of Nitrate of Silver.

℞. Argenti Nitratis, gr. iv.
Pulveris Glycyrrhizæ, gr. xij.
Syrupi, q. s.
Fiat massa, et divide in pilulas xij.
Signa.—Take one pill every three hours.

Pills of Nitrate of Silver, &c.

℞. Argenti Nitratis, gr. v. vel x.
Pulveris Opii, ℈ss.
——— Camphoræ,
——— Myristicæ, āā ℈j.
Mucilaginis Acaciæ, q. s. ut fiat massa, et divide in pilulas xx. Dose, a pill morning and evening. In chorea and epilepsy.

Pills of Iodide of Manganese.

℞. Potassii Iodidi,
Manganesiæ Sulphatis, exsiccatæ, āā ʒj.
Mellis, q. s.
Fiat massa in pilulas xxx. dividenda.
Signa.—To be kept in a well-stopped bottle. Take one pill morning and night.

The salts of manganese have recently been introduced as substitutes for the corresponding preparations of iron.

HANNON.

Pills of Iron and Gentian.

℞. Ferri Pulveris, ℈j.
Extracti Gentianæ, ℈ij.
Fiat massa, et divide in pilulas xx.
Signa.—Take one pill three times a day.

Pills of the Sulphate of Iron.

℞. Ferri Sulphatis, ʒj.
Extracti Gentianæ, q. s. ut fiat massa, et divide in pilulas xxx.
One to be taken morning, noon, and night. In dyspepsia, &c.

Pills of the Extract of Quassia.

℞. Extracti Quassiæ, ʒj.
Fiant pilulæ xx.
Of which one may be taken three or four times a day.

This is one of the purest bitters, and when a simple tonic is required, a more appropriate preparation cannot be substituted.

Pills of Oxide of Zinc.

℞. Zinci Oxidi, ℈ij.
Confectionis Rosæ, q. s. ut fiant pilulæ x.
Signa.—One three or four times a day. In epilepsy, chorea, &c.

Dr. Chapman speaks favorably of this medicine, and recommends to begin with the above dose, and gradually to increase it.

Pills of the Nitrate of Bismuth.

℞. Bismuthi Subnitratis, ʒj.
Mucilaginis Acaciæ, q. s. ut fiant pilulæ xxx.
One to be taken every two hours. In dyspepsia.

Pills of Nitromuriate of Gold.

℞. Auri Nitromuriatis, gr. v.
Pulveris Glycyrrhizæ, ʒjss.
Mucilaginis Acaciæ, q. s. ut fiat massa, in pilulas lxxv. dividenda.
Signa.—One or two thrice a day. In syphilis, &c.

This metal is placed under the head of tonics by Dr. Chapman and we have followed his example. Although once much extolled, it is now seldom used.

[By the term nitro-muriate, the author means what is now known as the chloride of gold. According to the *Codex*, it is prepared by heating in a sand-bath, "one part of fine leaf gold, with three parts of nitro-muriatic acid, and evaporating the solution carefully until the odor of chlorine is perceptible. It is then set aside to cool and crystallize." (DUNGLISON.) The preparations of gold are again coming into use. EDITOR.]

Mustard Seed.

℞. Seminum Sinapis Albi, ʒj.
Signa.—A teaspoonful of the unbruised seeds two or three times a day. They are beneficial in costive habits, when the constipation depends upon a torpid state of the muscular coat of the intestines.—PARIS *on Diet*, p. 187.

Electuary of Cinchona, Rust of Iron, &c.

℞. Pulveris Cinchonæ,
——— Ferri Subcarbonatis, āā ʒj.
Copaibæ, q. s. ut fiat electuarium.
To be made (by the patient) into pills of the ordinary size, of which four may be taken three times a day.

Pills of the Oxide of Silver.

℞. Argenti Oxidi, gr. vj.
Pulveris Glycyrrhizæ, gr. xij.
Syrupi, q. s.
Ut fiat massa in pilulas xij. dividenda.
Signa.—Take one pill three times daily.

Used with much success in pyrosis. Also highly recommended in menorrhagia.

INFUSIONS AND DECOCTIONS.

Infusion of Sage, Boneset, &c.

℞. Salviæ,
Eupatorii, āā ℥ss.
Cascarillæ, ʒj.
Infuse in three half-pints of boiling water until cold. Dose, a wineglassful every three or four hours. In hectic fever.

Infusion of Colomba and Ginger.

℞. Colombæ contusæ, ℥j.
Zingiberis, ʒij.
Aquæ bullientis, Oj.
Fiat infusum.—Give of the strained liquor (cold) a wineglassful every two hours.

This infusion, freely used, is adapted to chronic diarrhœa.

Infusion of Colomba, Rhubarb, &c.

℞. Cari contusi,
Radicis Colombæ contusæ,
——— Rhei contusæ, āā ℈j.
Aquæ ferventis, f℥viij.
Digest for two hours, and strain.

℞. Liquoris colati, f℥iijss.
Tincturæ Rhei, fʒj.
Syrupi Zingiberis, fʒij.
Misce.—Dose, a teaspoonful to a tablespoonful for children, according to their age. In diarrhœa.

Infusion of Wild-cherry Bark.

℞. Pruni Virginiani, ℥j.
Aurantii Corticis, ʒij.
Aquæ, Oj.
Infuse the bark alone for six hours, and then add the orange-peel. A wineglassful may be taken every hour or two in consumptive cases, asthma, &c.

Infusion of Virginia Snake-root.

℞. Serpentariæ, ℥j.
Aquæ bullientis, Oj.
Infuse in a covered vessel for one hour. A wineglassful every hour or two hours, *pro re nata.*

Infusion of Quassia, &c.

℞. Quassiæ,
Serpentariæ,
Aurantii Corticis, āā ℥ss.
Aquæ bullientis, Oij.
Fiat infusum et cola.—A teacupful to be taken cold, three times a day.

Cold Infusion of Chamomile and Orange Peel.

℞. Anthemidis, ℥j.
Aurantii Corticis, ℥ss.
Aquæ, Oij.
Macerate for twenty-four hours.—Dose, a teacupful three or four times a day.

The infusion of chamomile made with cold, is in general more grateful to the patient than when made with boiling water. The same remark applies to infusions generally, and they are also less liable to ferment.

Infusion of Hops.

℞. Humuli, ℥j.
Aquæ ferventis, Oj.
Infuse for two hours, and strain by expression. Of this a wineglassful may be taken three or four times a day. In dyspepsia.

Compound Infusion of Gentian.

℞. Gentianæ concisæ, ℥ss.
Aurantii Corticis, ʒij.
Cardamomi, ʒss.
Aquæ ferventis, Oj.
Fiat infusum.

Gentian is an excellent bitter. The above preparation is given in wineglassful doses, in debility of the digestive organs, &c.

Decoction of Angustura Bark.

℞. Angusturæ contusæ, ℥j.
Aquæ, Ojss.
Boil for fifteen or twenty minutes and strain. Of this decoction a wineglassful may be taken every two hours.

Decoction of Dog-wood Bark.

℞. Cornûs Floridæ contusi, ℥j.
Aquæ, Oj.
Boil for twenty or thirty minutes, and strain.—A wineglassful may be given every hour, as a substitute for Peruvian bark in intermittents, or as an ordinary tonic, every two hours.

Decoction of Bark and Valerian.

℞. Cinchonæ Rubræ contusæ, ℥j.
Boil in a pint of water for ten minutes, and strain.

℞. Valerianæ contusæ, ℥j.
Aquæ bullientis, Oj.
Infuse for one hour, and strain.—Add the decoction of bark to this infusion, and give a teacupful cold, three or four times a day.

This was a favorite prescription with the late Dr. Parrish, in rheumatic and nervous headache and hemicrania.

Acorn Coffee.

℞. Pulveris Glandis Quercûs torrefactæ, ℥j.
Aquæ bullientis, Oj.
Fiat infusum.—Three or four teacupfuls may be taken during the day, and augmented according to circumstances.

The above is a favorite remedy with the Germans. "It is one of the most successful in mesenteric atrophy, commencing rachitis, glandular swellings, asthma, and cough. Continued for a long time, it is one of the most powerful means we possess for destroying the scrofulous disposition."—HUFELAND, *Treatise on Scrofula*, p. 215.

MIXTURES, TINCTURES, &c.

Griffith's Myrrh Mixture.

℞. Myrrhæ,
Sacchari, āā ℥j.
Potassæ Carbonatis, gr. xxv.
Tere simul, et adde gradatim—
Aquæ Rosæ, f ℥vijss.
Spiritûs Lavandulæ, f ℥ss.
Dein adde—
Ferri Sulphatis crystallizati, in pulverem contriti, ℈j.
Fiat mistura.—Dose, a tablespoonful according to circumstances.
Given as a tonic in phthisis.

Mixture of Sulphuric Acid, &c.

℞. Ferri Sulphatis, ℈j.
Acidi Sulphurici, gtt. iv. vel vj.
Sacchari, ʒj.
Aquæ, f ʒiv.
Misce. *Signa.*—A teaspoonful for a dose, to be repeated every two, three, or four hours, much diluted.

Vinous Tincture of Gentian, &c.

℞. Pulveris Gentianæ,
Corticis Aurantii, āā ʒss.
Vini Rubri, Oj.
Macerate for three days, and give a wineglassful two or three times a day. In dyspepsia.

Mixture of Sulphate of Iron and Elixir of Vitriol.

℞. Ferri Sulphatis, gr. iv.
Acidi Sulphurici Aromatici, gtt. xx.
Aquæ destillatæ, f ʒj.
Fiat mistura. *Signa.*—A teaspoonful to be taken three times a day in a wineglass of water.

Vinegar Draught.

℞. Acidi Acetici, f ʒj.
Tincturæ Cardamomi Compositæ, f ʒss.
Syrupi, f ʒss.
Aquæ, f ʒx.
Misce.—To be taken in such portions as the stomach can bear. In sick headache.

Tincture of Cinchona, Valerian, &c.

℞. Tincturæ Cinchonæ,
——— Valerianæ, āā f ʒj.
——— Cardamomi, f ʒij.
Aquæ Menthæ Piperitæ, f ʒiv.
Fiat mistura.—Of this mixture a tablespoonful may be given every third hour. It is especially designed as a tonic in nervous temperaments.

Compound Tincture of Aloes, Gentian, &c.

℞. Aloës, ℥j.
Pulveris Zedoariæ,
———— Gentianæ,
———— Croci,
———— Rhei,
———— Agarici, āā ℥j.
Syrupi, f℥ij.

To be mixed into a quart of brandy. This is the celebrated Baûme de vie, or Elixir of Life. It is a powerful tonic, and one of the most effectual febrifuge medicines. In intermittents, especially, it is justly celebrated. Dose, a tablespoonful three times a day, in water.

Acidulated Tincture of Gentian.

℞. Tincturæ Gentianæ Compositæ, f℥iv.
Acidi Sulphurici Aromatici, f℥ss.

Misce.—A small teaspoonful to be taken in sugar and water, three or four times a day.

Huxham's Tincture of Bark.

℞. Tincturæ Cinchonæ Compositæ, f℥j.

Signa.—A teaspoonful for a dose, every two hours.

In the same doses as the above may be taken,

Tinctura Colombæ—et
Tinctura Gentianæ Compositæ.

Muriated Tincture of Iron.

℞. Tincturæ Ferri Chloridi, f℥j.

From five to twenty drops to be taken in a glass of cold chamomile tea, twice or thrice a day. In passive hemorrhage.

Nitrate of Silver Mixture.

℞. Argenti Nitratis, gr. ¼—j.
Aquæ destillatæ, f℥ij.
Pulveris Acaciæ, ℈ij.
Sacchari, ℥ij.

Fiat mistura. *Signa.*—A teaspoonful every two hours.

Used in the diarrhœa of newly-weaned infants. This is accompanied by the occasional injection of gr. ¼ of the salt in mucilage. HIRSCH.

Solution of Acetate of Strychnia.

℞. Strychniæ Acetatis, gr. j.
Acidi Acetici, ♏xx.
Alcoholis, f℥ij.
Aquæ, f℥vj.
Fiat mistura. *Signa.*—Take ten drops three times a day.

Useful as a tonic, in all cases of nervous exhaustion.

MARSHALL HALL.

Solution of Persesquinitrate of Iron.

℞. Liquoris Ferri Nitratis, f℥j.
Syrupi, f℥j.
Aquæ, f℥vj.
Fiat mistura. *Signa.*—Give a teaspoonful every three hours.

This preparation is very serviceable in all forms of diarrhœa, but more especially in chronic mucous diarrhœa, hemorrhage from the bowels, uterine hemorrhage, &c.

Sirup of Proto-Nitrate of Iron.

℞. Sulphate of Iron, ℥viij.
Carbonate of Soda, ℥x.
White Sugar, ℥xx.
Nitric Acid (*sp. gr.* 1.42) f℥v. and f℥v.
Boiling Water,
Simple Sirup, of each, sufficient.

"Dissolve the sulphate of iron, and carbonate of soda, each in two pints of the water, filter, and add to each solution two ounces of simple sirup. Mix the solutions, and allow the precipitate to subside. Pour off the supernatant liquid, and wash the precipitated carbonate carefully with sweetened water, until the washings have no longer a saline taste. Collect the precipitate upon a fine muslin strainer, and with gentle pressure express as much of the water as possible. Transfer to a porcelain capsule, and add gradually the nitric acid, previously diluted with an equal measure of water. Mix the sugar with the solution, and dissolve over a water-bath, stirring from time to time with a glass rod. When done, the sirup should be made to measure thirty fluidounces, by the addition of a sufficient quantity of water. This sirup contains ten grains of dry nitrate of iron, to each fluidram, and the dose varies from twenty to forty drops."

LIVERMORE.

Prof. Procter has published another formula, *Journ. Pharmacy*, vol. 23, p. 315.

This preparation is much used in Philadelphia as a substitute for the persesquinitrate of iron, and as the mode of making it is not generally known, the whole process is given.

EDITOR.

Sirup of Iodide of Iron.

℞. Liquoris Ferri Iodidi, f ℥ss.

Signa.—Take twenty drops, every three hours, in sweetened water.

This valuable preparation is tonic, alterative, and emmenagogue.

Sirup of Iodide of Iron and Manganese.

℞. Liquoris Ferri et Manganesiæ Iodidi, f ℥ss.

Signa.—Take twenty drops every three hours, in sweetened water.

This is used for the same purposes as the preceding. The salts of manganese are beginning to attract attention. The formula for its preparation, by Prof. Procter, will be found in the *American Journal of Pharmacy*, vol. 25, p. 198.

CLASS XIV.

ALTERATIVES.

Alteratives have been defined—medicines that re-establish the healthy functions of the animal economy, without producing any active evacuation. This class of remedies, therefore, embraces numerous preparations which produce a slow but decided effect on the various secreting organs, sometimes without any sensible increase of the secretions themselves, but in other instances obviously augmenting or magnifying them. Such is the action of minute doses of mercury, iodine, and other substances upon the glandular apparatus. These medicines are generally classed with stimulants and tonics, some of them with narcotics, and others have been placed with those preparations to which they seem most allied when given in an overdose—sialagogues, for example. Without attempting to investigate this question farther than regards practical convenience, we proceed in this place to indicate the more active and important Alteratives; merely premising the familiar truth, that medicines of almost every class of the materia medica become alteratives by being administered in very small doses at intervals of a few hours.

PILLS AND POWDERS.

Mercury.

The mercurial preparations constitute the most decided and efficient medicines of this class. In addition to several formulæ inserted under the head of Sialagogues, the following may be appropriately noticed in this place.

Calomel Pills.

℞. Hydrargyri Chloridi Mitis, gr. ij.
Confectionis Rosæ, q. s. ut fiant pilulæ xij.
Of which one may be taken every hour or two hours. In marasmus, &c. &c.

The use of calomel in minute doses has become very general, and deservedly so. In the hepatic and intestinal complaints of children, it is productive of the happiest results when carefully managed.

In infants, for example, the sixteenth or eighth of a grain, repeated every hour or two hours, according to age and circumstance, will often check diarrhœa, cholera infantum, and dysentery, which have resisted every other treatment. If the discharges are attended by pain and tenesmus, small doses of powdered opium or laudanum may be added; but, as a general rule, the anodyne had better be given by injection.

The preparation called blue-pill (pilula hydrargyri) is indicated in similar conditions, and is especially beneficial whenever an alterative is called for. A grain given at bedtime, or even a grain in divided portions through the day, will often produce the desired effect. Hence its extensive use in chronic and obscure derangements of the digestive organs, especially of the stomach and liver; in the whole class of syphilitic affections; glandular enlargements, &c.

In like manner, all the mercurial preparations mentioned under the head of SIALAGOGUES, become alteratives by cautious administration in doses more or less minute, and especially when they are given in conjunction with the preparations of sarsaparilla.

Pills of Calomel, Quinia, Opium, &c.

℞. Hydrargyri Chloridi Mitis, gr. vj.
Pulveris Opii, gr. iij.
Quiniæ Sulphatis, gr. xij.
Syrupi, q. s. ut fiat massa in pilulæ xij. dividenda.
Signa.—One night and morning.

Pills of Blue Mass, Quinia, &c.

℞. Pilulæ Hydrargyri,
Quiniæ Sulphatis,
Pulveris Aloës, āā gr. xij.
Syrupi Rhei Aromatici, q. s. ut fiant pilulæ xij.
Signa.—One, three or four times a day.

Either of the above prescriptions is adapted to the condition that follows bilious intermittent or remittent fever. They may be denominated tonic alteratives.

Pills of Red Iodide of Mercury.

℞. Hydrargyri Iodidi Rubri, gr. ss.
Extracti Juniperi vel Glycyrrhizæ, gr. viij.
Divide in pilulas viij. *Signa.*—Two in the morning and two at night; dose to be gradually and cautiously augmented.

Corrosive Sublimate Pills.

℞. Hydrargyri Chloridi Corrosivi, gr. j.
Solve in aquam destillatam, dein adde—
Micæ Panis,
Sacchari, āā gr. x. vel q. s.
Ut fiant pilulæ xx.
Signa.—Take one pill every four hours as an alterative.

DZONDI.

Arsenic.

Arsenic is a powerful alterative, and one that should be administered with the utmost circumspection. In addition to the formulæ already given, the following may be found useful.

Pills of the Arseniate of Iron.

℞. Ferri Arseniatis, gr. iij.
Extracti Lupuli, *Ed.* ʒj.
Pulveris Altheæ, ʒss.
Syrupi, q. s. ut fiat massa.
To be divided into forty-eight pills, of which one is given daily. Prescribed by Dr. Biett in scrofulous, cancerous, and herpetic diseases.

Asiatic Pills.

℞. Acidi Arseniosi, gr. j.
Pulveris Piperis Nigri, gr. xij.
——— Acaciæ, gr. ij.
Aquæ, q. s.
Misce, et divide in pilulas xij.
Signa.—Take one pill morning and night. Much used for tuberculous lepra.

BIETT.

Iodide of Arsenic Pills.

℞. Arsenici Iodidi, gr. j.—ij.
Extracti Conii, ℈ij.
Fiat massa, et divide in pilulas xvj.
Signa.—Take one pill morning and night. Given in lepra, impetigo, and cancerous disease.

Pills of Iodide of Silver.

℞. Argenti Iodidi,
Potassæ Nitratis, āā gr. x.
Tere simul ut fiat pulvis subtilis, dein adde—
Pulveris Glycyrrhizæ, ʒss.
Sacchari, ℈j.
Mucilaginis Acaciæ, q. s.
Ut fiant pilulæ xl.
Signa.—Take one pill three times daily.

Used successfully in the gastric affections of the Irish peasantry. C. PATTERSON.

Pills of Bromide of Iron.

℞. Ferri Bromidi pulverizati, gr. xij.
Confectionis Rosæ, gr. xviij.
Acaciæ, gr. xij.
Misce, et fiant pilulæ xx. Two pills to be taken in the morning, and two in the evening, or, one three times a day. In hypertrophy of the heart, and scrofulous affections.

Dr. Robert Dick strongly recommends the use of the bromide of iron in dyspeptics with strumous habits.
MAGENDIE.

Pills of Calomel and Ox Gall.

℞. Hydrargyri Chloridi Mitis, ℈j.
Fellis Bovini inspissati, gr. xv.
Saponis, gr. x.
Extracti Taraxaci, ʒss.
Fiat massa in pilulas xx. dividenda.
Signa.—Take two pills at bedtime.

These pills are alterative and deobstruent.

Brucia.

The alkaline principle called Brucia, or Brucine, is contained in the false Angustura bark, nux vomica, and St. Ignatius's bean. It possesses the properties of strychnia, but in less degree. It may be administered in doses of half a grain to a grain; but the minimum dose should be first given, and the quantity gradually augmented.

Pills of Brucia.

℞. Bruciæ, gr. xij.
Confectionis Rosæ, q. s. ut fiat massa.
Divide in pilulas xxiv.
Signa.—One pill to be taken four times a day, and gradually increased.

Burnt Sponge.

℞. Spongiæ Ustæ, ℥j.
Sacchari ℈j.
Misce, et divide in chartulas vj.—One three times a day, gradually augmenting the dose. In bronchocele.

It is well known that iodine was first discovered in sea-weed and sponges; and the latter having long had the reputation of being a cure for goitre, it was found that iodine was the active remedial agent. We give above a prescription for the use of Sponge as formerly in vogue, but now nearly superseded by the preparations of pure iodine.

TINCTURES, MIXTURES, &c.

Preparations of Iodine.

That iodine is one of the most powerful alteratives at present known, there can be no question. There are few diseases dependent upon or connected with morbid secretion of the glandular structures, but what are more or less modified by its use, while in others it acts as a direct curative agent. It is chiefly, however, in scrofulous, glandular, and cutaneous affections that it acts most beneficially, dispersing indurations of the glands, and restoring the secretions of the cutaneous and mucous apparatus; whence its advantages in eruptive diseases, bronchitis, leucorrhœa, amenorrhœa, &c. &c. It has been found to restore suppressed hemorrhoidal and catamenial discharges, and when pushed too far, has even produced alarming hemorrhage of the lungs, nose, and uterus. These facts should make the practitioner extremely cautious in its administration, beginning with small doses, and watching their effects. Should it produce any of the inconveniences already mentioned, or dizziness, nausea, purging, burning of the skin or swelling of the gums, it should be at once suspended, or given less frequently and in smaller doses.

Ethereal Tincture of Iodine.

℞. Iodinii, gr. vj.
Ætheris, f℥ij.
Misce.—Thirty drops contain one grain of iodine.—Dose, ten drops two or three times a day, largely diluted. In cutaneous and glandular diseases.

Compound Tincture of Iodine.

℞. Iodinii, ℥ss.
Potassii Iodidi, ℥j.
Alcoholis, Oj.
Fiat tinctura.—Dose, five to fifteen drops, *pro re nata.*

Mixture of Iodide of Potassium, &c.

℞. Potassii Iodidi, gr. x. vel ℈j.
Magnesiæ Sulphatis, ℥ss.
Potassæ et Antimonii Tartratis, gr. ss.
Aquæ destillatæ, f℥vj.
Misce. *Signa.*—A teaspoonful three or four times a day. In scrofula.

Saturated Tincture of Iodine.

℞. Iodinii, ℈ij.
Alcoholis, f℥j.
Spiritûs Lavandulæ Compositi, f℥ij.
Fiat solutio.—This is Mr. Durand's saturated solution. The dose is ten or twenty drops, which may be gradually increased, watching its effects.

Iodine with Iodide of Potassium.

℞. Iodinii, gr. iij.
Potassii Iodidi, gr. vj.
Aquæ destillatæ, f℥j.
Solve. *Signa.*—Dose, six to ten or twenty drops thrice a day in a draught of cold water.

If it produce dizziness, pain in the bowels, or other unpleasant symptoms, diminish the quantity.

The author of *Illustrations of Pulmonary Consumption*, strongly recommends this formula in catarrh, phthisis, &c. It has a powerful effect in glandular disease, and all affections of the mucous membranes. S. G. Morton.

Mixture of Tincture of Iodine, &c.

℞. Tincturæ Iodinii, f℥j.
Mucilaginis Acaciæ, f℥ij.
Aquæ destillatæ, f℥vj.
Fiat mistura. *Signa.*—A tablespoonful every two hours. Employed in cases of ulceration accompanied by purulent discharge from the meatus auditorius, and in the scrofulous diathesis.

Solution of Iodide of Iron.

℞. Ferri Iodidi, ℥j.
Aquæ destillatæ, f℥j.
Fiat solutio.—Dose, six to ten drops, morning, noon, and night, in a wineglass of cold water.

Solution of Iodide of Potassium.

℞. Potassii Iodidi, gr. xxxvj.
Aquæ destillatæ, f℥j.
Fiat solutio.—Dose, ten to twenty drops, morning, noon, and night, in a wineglass of sweetened water. Each dose will contain between one and two grains of the iodide.

MAGENDIE.

Lugol's Solution.

℞. Liquoris Iodinii Compositi, f℥ss.
Signa.—Give ten drops in sweetened water three times a day.

Magendie's Anti-epileptic Iodine Solution.

℞. Potassii Iodidi, ℥iv.
Iodinii, gr. ij.
Aquæ Menthæ Piperitæ, f℥vj.
Fiat solutio.—Dose, a teaspoonful thrice per diem.

Mixture with Iodide of Potassium.

℞. Potassii Iodidi, ℥ss.
Syrupi Zingiberis, f℥j.
Aquæ, f℥v.
Fiat mistura. *Signa.*—Take a tablespoonful three times a day.

Solution of the Iodureted Hydriodate of Potash.

℞. Iodinii, ℈j.
Potassii Iodidi, ℈ij.
Aquæ destillatæ, f℥vij.
Fiat solutio.—Dose, six drops, morning and evening, in a wineglass of water. In scrofulous and scirrhous diseases.

DUNGLISON'S *New Remedies*, 6th ed. p. 598.

Mixture of Iodo-hydrargyrate of Potash.

℞. Potassii Iodidi, gr. iijss.
Hydrargyri Iodidi Rubri, gr. ivss.
Aquæ destillatæ, f ʒj.

Dissolve first the iodide of potassium, and then the biniodide of mercury, in the water. The compound salt in this solution may be assumed at eight grains, although there is a small excess of the iodide of potassium. The dose is from two to five drops, containing from the thirtieth to the twelfth part of a grain, which may be repeated three times a day, much diluted.

Dr. Channing.

Iodureted Sulphuric Ether.

℞. Ætheris, f ʒj.
Iodinii, gr. vj.

Solve. *Signa.*—Six drops constitute a dose. To be largely diluted when taken.

Thirty drops of this solution contain a grain of iodine.

Iodine Waters.

The physicians of Europe, and especially of Paris, have made extensive and salutary use of iodine waters, both internally and externally. In these, the iodine is very much diluted, and generally with the addition of more or less common salt. These waters are prepared on a large scale and with great precision by the pharmaceutists of Paris; but they have been but partially introduced into this country. M. Magendie, however, gives formulæ for some extemporaneous iodine waters, which may answer all the purposes of the more elaborate preparations. The following is an example:—

℞. Potassii Iodidi, gr. vj.
Iodinii, gr. j.
Aquæ, Oij.

Fiat solutio.—This solution is directed to be drank at meals, in place of common water.

Donovan's Solution.

℞. Liquoris Arsenici et Hydrargyri Iodidi, f ʒss.

Signa.—Give ten drops three times a day in sweetened water.

Used in various skin diseases, and for venereal eruptions.

Bromine.

This substance, which is allied to chlorine and iodine, in its habitudes, is obtained from salt springs and other mineral waters. In medicine, it is chiefly used in combination with potassa.

Solution of Bromine.

℞. Brominii, f ʒss.
Aquæ, f ʒijss.
Misce. *Signa.*—Dose, five drops three times daily.
POURCHE.

Solution of Bromide of Potassium.

℞. Potassii Bromidi, ℈j.—ij.
Syrupi Aurantii Corticis, f ʒj.
Aquæ, f ʒiij.
Fiat mistura. *Signa.*—Give a tablespoonful three times a day.

Mixture of Iodine and Arsenic.

℞. Liquoris Iodinii Compositi, f ʒij.
——— Potassæ Arsenitis, f ʒj.
Misce. *Signa.*—Take five drops three times daily.

Pearson's Solution.

℞. Sodæ Arseniatis, gr. j.
Aquæ, f ʒj.
Fiat solutio. *Signa.*—Dose, twelve to twenty drops, three times a day.

Used in the scaly and other skin diseases.

An arseniate of ammonia was introduced by Biett, and employed by him in the same strength as the foregoing solution, *i. e.* one grain to the fluidounce, and given in the dose of twenty drops. Its virtues are similar to those of Fowler's and Pearson's solutions.

Phosphate of Ammonia.

℞. Ammoniæ Phosphatis, ʒss.
Aquæ destillatæ, f ʒvj.
Fiat solutio.—A tablespoonful to be taken every four hours.

The preceding formula is that of Dr. Buckler, who recommends it in those cases of gout and rheumatism in which little acid is present in the urine; as well as in all the chronic modifications of those diseases, especially when they are associated with chronic thickening of the white tissues.

Strychnia.

We have (under the head of Narcotics) noticed several prescriptions for using this extremely poisonous substance; but as

it is chiefly given as an alterative, we now add some additional modes of administration. Strychnia is much in vogue in the whole class of nervous diseases, paralysis, whether general or local, neuralgia, chorea, hysteria, &c. It is also employed in syphilis, amenorrhœa, dyspepsia, bronchitis, and, in fact, in all cases where an alterative course is indicated.

Solution of Acetate of Strychnia.

℞. Strychniæ Acetatis, gr. iij.
Alcoholis, f ʒj.
Aquæ Cinnamomi, f ʒvij.
Misce.—Dose, five drops twice a day, cautiously increasing it.
DUNGLISON, *New Remedies*, 6th ed. p. 664.

Tincture of Acetate of Strychnia.

℞. Strychniæ Acetatis, gr. jss.
Alcoholis, f ℥ss.
Fiat tinctura.—Dose, five to ten drops thrice per diem. In syphilitic pains of the bones, &c. DUNGLISON, *ut supra.*

A sulphate of strychnia is also in use. It is prepared like the acetate, of course substituting sulphuric acid. It has no advantages over the preparations already given, and is little used. *See* MAGENDIE, *Formulaire*, 9*ème éd.* p. 30.

Mixture of Brucia.

℞. Bruciæ, gr. vj.
Aquæ destillatæ, f ℥iv.
Sacchari, ʒij.
Fiat mistura. Dose half a tablespoonful night and morning. This and the following preparation are used in paralysis and the entire series of spasmodic affections.

Tincture of Brucia.

℞. Bruciæ, gr. xviij.
Alcoholis, f ℥j.
Fiat tinctura.—From six to ten drops may be taken in a draught of water.

Cod-Liver Oil (*Gadus Morrhua*).

This preparation, which is now divested in a great measure of its nauseous smell and taste, is given in doses of half an ounce, three or four times a day. To children, a teaspoonful. It is of much service in all strumous affections, and in the

chronic forms of gout and rheumatism. It may be taken alone, or in milk; most persons prefer taking it on the froth of porter. Others swallow it in coffee, in lemon-juice, or with some of the aromatic waters.

Dr. Bradshaw recommends a thin infusion of flaxseed, flavored with lemon-peel, and sweetened to please the palate. He says: "I pour a small quantity of infusion into a glass, on which is added the oil, and again another small quantity of infusion upon it. In this manner, the dose may be swallowed, and will slip down without offending the palate, and generally is well retained even by irritable stomachs." The same author says: "Another mode has been successful when many have failed, and will be found equally valuable: It is the yelk of an egg beat up with boiling water and sugar, with which may be mixed a dessertspoonful of brandy; and on this the dose may be given without producing that nausea so frequently experienced when conveyed by other vehicles."

In the Editor's experience, the form of emulsion has proved to be one of the least satisfactory modes of exhibiting this article. He is in the habit of administering it in the pure state, directing the patient to chew a piece of orange-peel before and after each draught; or, what is equally effectual, to rinse the mouth, and gargle the throat with vinegar, before and after the dose.

Mixture with Cod-Liver Oil.

℞. Olei Morrhuæ, f℥ss.
Liquoris Potassæ, gtt. xl.
Aquæ Menthæ Piperitæ, f℥ss.
Misce, et fiat haustus.

The draught to be washed down with a teaspoonful of lemon-juice to liberate the oil on the stomach. DUNGLISON, *New Rem.* 6th ed. p. 557. PERCIVAL.

Mixture of Iodine and Cod-Liver Oil.

℞. Iodinii, gr. jss.
Olei Morrhuæ, f℥v.
Rub the iodine with a dram of the oil, and then carefully add the remainder.
Signa.—Dose, a tablespoonful three times a day.

The quantity of iodine can be increased without materially changing the appearance of the solution. FLEISCHMANN.

Mixture with Corrosive Sublimate.

℞. Hydrargyri Chloridi Corrosivi, gr. ij.
Aquæ destillatæ, f℥vj.
Spiritûs Cinnamomi,
Syrupi, āā f℥j.
Misce.—Dose, one or two large spoonfuls, twice or thrice a day. In venereal cases.

Nitro-muriatic Acid.

℞. Acidi Nitrici, f℥ss.
—— Muriatici, f℥j.
Aquæ, f℥viij.
Misce, et adde—
Spiritûs Ætheris Nitrici, f℥j. vel. f℥ij.
Fiat mistura. *Signa.*—From twenty drops to half a tea-spoonful to be given every three hours, in a wineglass of sweetened water.

These acids, in the same proportions, are also employed as a bath in hepatic derangements. To accomplish this end, put a teaspoonful of the compound acid into a quart of warm water, and apply it to the region of the liver night and morning, by means of a soft sponge.

Diluted Nitric Acid.

℞. Acidi Nitrici, f℥ss. vel f℥j.
Aquæ, Oij.
Sacchari, ℥j.
Fiat mistura.—One-eighth of this quantity may be taken daily, in divided doses. In lues venerea.

FERRIAR, *Med. Hist.*

Mixture of Nitric Acid.

℞. Acidi Nitrici, f℥ss.
Pulveris Acaciæ,
Sacchari, āā ℥iij.
Aquæ, f℥viij.
Fiat mistura. *Signa.*—A small tablespoonful largely diluted. and sweetened, *pro re nata.*

Nitric acid may be prescribed as a tonic in the above form, or simply diluted with water. It is best taken through a quill, as the teeth suffer when it comes in contact with them. It sometimes arrests the colliquative sweats of hectic fever when other remedies fail.

Artificial Harrowgate Water.

℞. Potassæ Sulphatis cum Sulphure, *Ed.* ʒj.
——— Bitartratis, ʒss.
Magnesiæ Sulphatis, ʒvj.
Aquæ destillatæ, Oij.
Solve. *Signa.*—One-half, taken in draughts, constitutes a dose.

The above ought to be taken in the morning before breakfast, and be followed by a walk, to produce the desired effect.

Antacrid Tincture.

℞. Pulveris Guaiaci, ℥j.
Terebinthinæ Canadensis, ℥j.
Hydrargyri Chloridi Corrosivi, ℈j.
Olei Sassafras, f℥ij.
Alcoholis, f℥viij.
Dissolve the corrosive sublimate in one-half the spirit, and then add to it the other ingredients.—Of this from ten to twenty drops may be taken morning and evening, in wine or water.

This form of exhibiting corrosive sublimate is employed by Dr. Emerson and other practitioners of this city, in lues venerea, &c.

CLASS XV.

ASTRINGENTS.

Doctor Cullen describes astringents to be "such substances as, applied to the human body, produce contraction and condensation in the soft solids, and thereby increase their density and force of cohesion." "And by the operation of this corrugating power," adds Dr. Murray, "either directly exerted on a part, or extended by sympathetic action, the morbid affections arising from a state of relaxation are supposed to be removed."

In the use of this class of medicines a caution suggests itself; namely, that they should not be given to arrest evacuations that are critical, and designed by nature to relieve a plethoric state of the system, unless such an evacuation exists to an alarming extent.

POWDERS, PILLS, &c.

Compound Powder of Alum.

℞. Aluminis, ℈j.
Pulveris Kino, gr. v.
Fiant pulveres v. *Signa.*—One every two hours. In obstinate diarrhœa.

This compound, though much employed by some practitioners, contains substances which would be incompatible with each other if given in solution. In menorrhagia, &c.

Powder of Sugar of Lead and Calomel.

℞. Hydrargyri Chloridi Mitis, gr. j. vel ij.
Plumbi Acetatis, gr. ss. ad gr. j.
Fiant pulveres iv.—One every three hours. In cholera infantum.

The above dose is adapted to any period between ten and twenty months of age. Dr. T. D. Mitchell.

Powder of Sugar of Lead, Calomel, and Ipecacuanha.

℞. Hydrargyri Chloridi Mitis,
Pulveris Ipecacuanhæ, āā gr. ij.
Plumbi Acetatis, gr. viij.
Misce, et divide in pulveres viij.
Signa.—Give one powder every three hours.

Used in cholera infantum. The Editor, from his connection with a large charitable institution, has had repeated opportunities of testing the various astringent preparations employed in this complaint, and he has found none to answer better than this formula, either as it stands, or with the addition of twenty-four grains of prepared chalk. The quantity of sugar of lead appears large, but experience proves that it may be given, both with safety and benefit, to a child from one to three years old.

D. F. Condie.

Powder with Alum and Opium.

℞. Aluminis, ʒss.
Pulveris Opii, gr. iij.
Fiant pulveres vj. *Signa.*—One to be taken every three or four hours. In diarrhœa.

Powders of Nitrate of Bismuth, &c.

℞. Bismuthi Subnitratis, ʒj.
Pulveris Acaciæ, ʒss.
Magnesiæ, ℈j.
Misce, et divide in pulveres xij.
Signa.—Give one powder every four or six hours.

Used in the diarrhœa of phthisis. T. Thomson.

Powders of Nitrate of Bismuth.

℞. Bismuthi Subnitratis, gr. iij.—vj.
Sacchari, gr. x.
Fiant pulveres vj.
Signa.—Place a powder on the tongue of a child (one year old), three or four times daily.

Used in the diarrhœa of children.

Recamier, Trousseau.

Pills of Acetate of Lead and Calomel.

℞. Plumbi Acetatis, ʒss.
Hydrargyri Chloridi Mitis, gr. v.
Confectionis Rosæ, q. s.
Ut fiant pilulæ x.—One to be given every two, three, or four hours, according to circumstances. In hemorrhage, and especially in hematemesis.

Pills of Sugar of Lead and Opium.

℞. Plumbi Acetatis, ℈j.
Opii, gr. j.
Misce, et divide in pilulas xij.—A pill to be taken every hour at first, and then every two hours. This is Dr. Graves's prescription for the treatment of cholera.

Pills of Sugar of Lead and Opium.

℞. Plumbi Acetatis, gr. xij.
Pulveris Opii, gr. vj.
Confectionis Rosæ, q. s. ut fiat massa in pilulas vj. dividenda.
One to be taken for a dose, according to circumstances. In hæmoptysis and other hemorrhages.

Pills of Alum, Catechu, &c.

℞. Aluminis, gr. vj.
Extracti Opii, gr. j.
Catechu, gr. vj.
To be divided into six pills, one of which is to be given every two, three, or four hours. In passive hemorrhage, and in atonic mucous discharges.

Pills of Rhatany.

℞. Extracti Krameriæ, ℈j.
Pulveris Kino, q. s.
Ut fiant pilulæ viij. *Signa.*—A pill to be given every hour or two hours. In the profluvia.

Pills of Creasote.

℞. Creasoti, gtt. x.
Pulveris Glycyrrhizæ,
Mucilaginis Acaciæ, āā q. s.
Ut fiant pilulæ xx.—Dose, a pill thrice in the day. In bronchitis, neuralgia, &c.

Pills of Kino, Opium, &c.

℞. Pulveris Kino, gr. xx.
——— Opii, gr. ij.
Mucilaginis Acaciæ, q. s. ut fiant pilulæ iv.
Of which take one every four hours. In diarrhœa, pyrosis, &c.

Monesia.

This substance is the product of a tree that grows in Chili, but its botanical affinities are unknown. It is given in the form of extract, twelve or twenty grains daily, divided into three-grain pills. There is also a tincture of monesia, of which the dose is f℥j. twice *per diem*. In leucorrhœa, diarrhœa, menorrhagia, &c. &c.

Tannin Pills.

℞. Acidi Tannici, gr. viij. vel xij.
Mucilaginis Acaciæ, q. s.
Ut fiant pilulæ viij. One may be given every two or three hours. In gonorrhœa, &c.

Pills of Tannin and Morphia.

℞. Acidi Tannici, ℈j.
Morphiæ Sulphatis, gr. j.
Mucilaginis Acaciæ, q. s.
Ut fiant pilulæ x.
One to be given every two or three hours. Blue mass may be added according to circumstances. In diarrhœa and dysentery.

Pills of Gallic Acid.

℞. Acidi Gallici, ℈j.
Extracti Gentianæ, gr. x.
Syrupi, q. s.
Fiat massa in pilulas x. dividenda.
Signa.—Give one pill every three hours. Used in hæmaturia, and other hemorrhages.

Bolus with Alum and Extract of Bark.

℞. Aluminis,
Extracti Cinchonæ Rubræ,
Myristicæ, āā ℈ss.
Syrupi, q. s. ut fiat bolus.
To be given in uterine and other hemorrhages, and repeated *pro re nata*.

MIXTURES, INFUSIONS, &c.

Infusion of Matico.

℞. Matico concisi, ℥j.
Aquæ bullientis, Oj.
Macera per horas duas et cola.
Signa.—Take a wineglassful every two or three hours.

This has been used to check the discharge in hæmoptysis, hæmatemesis, and dysentery.

Parrish's Camphor Mixture.

℞. Aquæ Camphoræ, f℥iij.
Spiritûs Lavandulæ Compositi, f℥j.
Sacchari, ʒj.
Fiat mistura. *Signa.*—Give a tablespoonful every two hours in diarrhœa and cholera morbus, adding ten drops of laudanum when there is much pain. JOS. PARRISH.

Camphor, Laudanum, and Nitric Acid, or Hope's Mixture.

℞. Aquæ Camphoræ, f℥iv.
Acidi Nitrici, gtt. iv.
Tincturæ Opii, gtt. xl. vel lx.
Fiat mistura.—Dose, a tablespoonful every two hours. In diarrhœa and dysentery.

This is a well known and very efficacious preparation analogous to *Hope's mixture.* If the nitric acid is added in larger proportion, it is liable to defeat the object of the prescription. The original formula contained a fluidram of nitrous acid, forty drops of laudanum, and eight fluidounces of camphor water, and was given in doses of two fluidounces every three hours. HOPE.

Chalk Mixture.

℞. Cretæ Præparatæ, ʒiss.
Sacchari,
Acaciæ, āā ʒj.
Aquæ destillatæ, f℥iv.
Olei Cinnamomi, gtt. ij.
Tincturæ Opii, gtt. xl. vel lx.
Misce.—Dose, a tablespoonful every two hours. In diarrhœa and dysentery.

When a strongly astringent chalk mixture is desirable, we add to the above formula Tinct. Kino, f℥ij. or the same quantity of tincture of krameria, catechu, or nutgalls.

Jackson's Mixture.

℞. Spiritûs Lavandulæ Compositi,
Tincturæ Camphoræ, āā f℥ss.
——— Opii,
Spiritûs Ætheris Compositi, āā f℥ij.
Misce. *Signa.*—Give twenty drops at short intervals, in cholera morbus, and the early stages of cholera, to allay nausea and relieve pain. S. Jackson.

Although this preparation is not strictly astringent, yet it may be classed with great propriety with Hope's and Parrish's mixtures.

Infusion of Galls.

℞. Gallæ contusæ, ℥ij.
Aquæ bullientis, f℥x.
Infuse for four hours, and strain.—To be taken in doses of a tablespoonful every hour or two hours. In diarrhœa. It may be rendered more agreeable by the addition of some aromatic.

Infusion of Galls and Chalk.

℞. Acaciæ, ℥j.
Cretæ Præparatæ, ℥ij. vel ℈ss.
Infusi Gallæ, f℥iv.
Tincturæ Opii, f℥ss.
Fiat mistura.—Dose, a tablespoonful every two hours. In diarrhœa.

Infusion of Logwood.

℞. Hæmatoxyli concisi, ℈ss.
Aquæ bullientis, Oj.
Infuse for two or three hours, and strain. Of this a tablespoonful is given to a child every two or three hours. In cholera and diarrhœa.

Mixture of Extract of Logwood, &c.

℞. Extracti Hæmatoxyli, ℥iij.
Tincturæ Catechu, f℥ij.
Aquæ, f℥vij.
Misce. *Signa.*—Two tablespoonfuls to be given once in three or four hours. In the advanced stages of diarrhœa and dysentery.

Mixture with Extract of Bark and Alum.

℞. Extracti Cinchonæ Rubræ, ℥ss. vel ℥j.
Aluminis, ℈ij.
Aquæ Cinnamomi, f℥iij.
Syrupi, f℥j.
Misce. *Signa.*—Two teaspoonfuls every two hours. In low diseases accompanied with hemorrhage.

Mixture with Tincture of Catechu, &c.

℞. Tincturæ Catechu, f℥j.
———– Opii, gtt. lx.
Acaciæ, ℥ij.
Aquæ Cinnamomi, f℥vj.
Misce. *Signa.*—A tablespoonful every two hours. In diarrhœa.

Creasote Mixture.

℞. Creasoti, gtt. vj.
Mucilaginis Acaciæ, f℥iv.
Sacchari, ℥j.
Fiat mistura.—Dose, a tablespoonful diluted, every two or three hours. In hemorrhages.

Alcoholic Solution of Creasote.

℞. Creasoti, gtt. j.
Alcoholis, gtt. xvj.
Misce.—A drop or two of this solution dropped into the cavity of an aching tooth, is said to afford immediate relief.

MARINUS.

Electuary of Catechu and Opium.

℞. Electuarii Catechu, *Ed.* ℥j.
Suited to cases of diarrhœa, in teaspoonful doses. Ten scruples contain one grain of opium.

Alum Whey.

℞. Lactis Vaccinæ bullientis, Oj.
Pulveris Aluminis, ℥ij.
Boil them until the coagulum separates, and strain. A cupful to be taken occasionally. In diabetes, &c.

Peruvian Bark with Lime-water.

℞. Pulveris Cinchonæ Rubræ, ℥ss.
Liquoris Calcis, f℥viij.
Misce. *Signa.*—A tablespoonful every two hours, or oftener if necessary. In diarrhœa and menorrhagia.

Sirup of Galls, Brandy, &c.

℞. Gallæ contusæ, ʒij.
Spiritûs Vini Gallici, fʒviij.
Mix.—Burn out the spirit; then add—
Corticis Cinnamomi,
Macis, āā ʒij.
While hot, add sugar by burning it over the inflamed brandy until a sirup is formed. Decant the pure sirup. Dose, a tablespoonful every two hours. In chronic and obstinate diarrhœa. JOS. PARRISH.

Solution of Sulphate of Copper, &c.

℞. Cupri Sulphatis, gr. iij.
Acidi Sulphurici, gtt. x.
Aquæ destillatæ, ʒj. vel fʒij.
Fiat solutio. *Signa.*—From twenty to forty drops to be given every one or two hours in sirup, *pro re nata.* In menorrhagia.

Mixture of Extract of Rhatany, &c.

℞. Extracti Krameriæ, ʒj.
Syrupi Papaveris, *Lond.*
Aquæ Rosæ, āā fʒij.
Fiat solutio. *Signa.*—A teaspoonful for a dose, *pro re nata.* In passive hemorrhage and chronic dysentery.
M. FOUQUIER.

Solution of Acetate of Lead.

℞. Plumbi Acetatis, gr. v.
Aceti, gtt. v.
Sacchari, ʒj.
Aquæ, fʒj.
Fiat mistura. *Signa.*—Give a teaspoonful to a child every hour or two, to allay the vomiting in cholera infantum.
D. F. CONDIE.

Enema of Acetate of Lead, &c.

℞. Plumbi Acetatis, ℈j.
Tincturæ Opii, gtt. lx.
Aquæ tepidæ, fʒij.
Fiat solutio.—To be thrown up the rectum in uterine hemorrhage. DEWEES'S *Syst. of Mid.* p. 420.

CLASS XVI.

ABSORBENTS, OR ANTACIDS.

Absorbents or Antacids form a class of remedies for correcting acidity in the stomach and bowels. As a general rule they should be preceded by an emetic or cathartic, or both. When a permanent effect is desired, they are usually combined with tonics, aromatics, and sometimes with narcotics. When given alone, they too frequently afford but transient relief.

POWDERS AND PILLS.

Compound Cretaceous Powder with Opium.

℞. Cretæ Præparatæ, ʒiss.
Pulveris Cinnamomi, ʒj.
———— Piperis Longi, gr. viij.
———— Opii, gr. vj.
Divide in chartulas xij.—One three or four times a day. In diarrhœa.

The above formula, with a slight alteration, is from the *London Pharmacopœia.*

Powder with Crab's Claws and Rhubarb.

℞. Chelæ Cancrorum, ʒj.
Pulveris Rhei, ℈ij.
Misce, et divide in pulveres iv.—Of which one may be taken once or twice a day, according to circumstances. In acidity of the primæ viæ.

This preparation is called by the several names of crab's claws, eyes, and stones. It is a carbonate of lime united with some animal gelatine, which, like prepared oyster-shells, has little or no superiority over the prepared chalk.

Powder with Magnesia, Fennel-seed, &c.

℞. Magnesiæ, ʒss.
Pulveris Fœniculi,
——— Cinnamomi, āā ʒj.
Fiat pulvis.—Dose, a small teaspoonful three or four times a day.

Powder with Soda, Magnesia, &c.

℞. Magnesiæ, ʒss.
Sodæ Bicarbonatis,
Pulveris Zingiberis, āā ℈j.
Misce. *Signa.*—A small teaspoonful occasionally. In cardialgia.

Powder with Magnesia and Colombo.

℞. Magnesiæ, ʒjss.
Pulveris Colombæ, ʒj.
Misce.—Divide in chartulas vj.—Of which one may be taken three times a day, in sugar and water. In cardialgia.

Pills of Soda, Rhubarb, &c.

℞. Pulveris Rhei,
Sodæ Carbonatis exsiccatæ,
Extracti Gentianæ, āā ℈j.
Hydrargyri Chloridi Mitis, gr. iij.
Fiant pilulæ xx. *Signa.*—Two occasionally. In dyspepsia.

MIXTURES, SOLUTIONS, &c.

Chalk Mixture.

℞. Cretæ Præparatæ, ʒiss. vel ʒij.
Sacchari,
Pulveris Acaciæ, āā ʒj.
Aquæ Menthæ Piperitæ, f ʒvj.
Fiat mistura.—A tablespoonful for a dose every two hours. When administered in diarrhœa, astringents and laudanum are added.

Solution of Salt of Tartar.

℞. Potassæ Carbonatis, ʒj.
Sacchari, ʒj.
Aquæ Menthæ Piperitæ, f ʒiv.
Spiritûs Lavandulæ Compositi, f ʒij.
Tincturæ Opii, gtt. xl.
Misce. *Signa.*—A tablespoonful every hour or two hours. In sickness of the stomach occasioned by acidity.

The opium in the above prescription may be omitted at the discretion of the practitioner.

Mixture of Salt of Tartar, Ammonia, &c.

℞. Spiritûs Ammoniæ Aromatici, f ʒj.
Potassæ Carbonatis, ʒij.
Aquæ Cinnamomi, f ʒiv.
Misce. *Signa.*—A large teaspoonful for a dose *pro re nata.* In pyrosis.

Lime-water and Milk.

℞. Liquoris Calcis,
Lactis recentis, āā f ʒiij.
Misce. *Signa.*—One or two tablespoonfuls for a dose. In sickness of the stomach few remedies are more prompt in their effect. An antacid remedy admirably adapted to children, is prepared by pouring four ounces of boiling-water on a heaped teaspoonful of calcined magnesia, and giving a dessertspoonful of the clear solution every hour or two. It is highly aperient.

Mixture with Ammonia, Magnesia, &c.

℞. Magnesiæ, ʒj.
Spiritûs Ammoniæ Aromatici, fʒj.
——— Cinnamomi, *Lond.* f ʒiij.
Aquæ, f ʒvj.
Misce. *Signa.*—A tablespoonful every two hours. In the sickness accompanying pregnancy.

Mixture of Magnesia, Camphor, &c.

℞. Magnesiæ, ʒj.
Camphoræ, ʒss.
Sacchari,
Acaciæ, āā ʒij.
Ætheris, f ʒss.
Aquæ destillatæ, f ʒiv.
Misce. *Signa.*—A tablespoonful for a dose four or five times a day. In flatulency and irritable stomach.

Mixture of Colombo, &c.

℞. Colombæ, ʒss.
Coque in Aquæ, f ʒviij. ad f ʒv.
Cola et adde—
Potassæ Carbonatis, ϑss.
Succi Limonis, fʒiij.
Tincturæ Opii, gtt. xij.
Misce.—From a tea to a tablespoonful may be given every hour. Anti-emetic.

A hot infusion of bruised colombo, is preferable to the above decoction, inasmuch as it contains all the virtues of the root, without the starch. EDITOR.

Anti-emetic Mixture.

℞. Tincturæ Aurantii, *Lond.* f℥ss.
——— Aloës,
——— Castorei, āā f℥j.
Misce. *Signa.*—Dose, from forty to fifty drops three or four times a day.

In continued or chronic vomiting, occasioned by atony or spasm of the stomach, the above is strongly recommended by Hufeland in his Treatise on Scrofula.

Mixture with Carbonate of Soda, &c.

℞. Sodæ Carbonatis, ℈iv.
Infusi Gentianæ Compositæ,
Aquæ Cinnamomi, āā f℥iij.
Tincturæ Cardamomi, f℥ss.
Fiat mistura. *Signa.*—A tablespoonful every two or three hours. In acidity, flatulence of the stomach, &c.

Dyspeptic Lye.

Take of

Hickory ashes,	1 quart,
Soot,	6 ounces.
Boiling water	1 gallon.

Mix, and let them stand for twenty-four hours, frequently stirring the ingredients. A teacupful may be given of this liquor (decanted), three times a day. It should be decanted always at the end of twenty-four hours, for, by standing on the materials a long time, the water acquires *caustic properties*, and may do serious injury.

This domestic remedy we have thought best to give, as we received it, in the English language. It deserves an insertion, from the circumstance that it was employed by the late Dr. Physick in his own case, and was of decided advantage when the usual alkaline remedies had failed.

BOOK II.

OF

EXTERNAL APPLICATIONS.

CLASS XVII.

CAUSTICS, OR ESCHAROTICS.

Caustics or cauteries are divided into the actual and potential. The first consists of fire itself; and the second, of those substances which destroy the living solids, either by excessive stimulation, or, as some suppose, by producing a chemical decomposition.

Firing.

A modified form of the actual cautery has attracted some attention in Europe, from its great efficacy in the relief of neuralgic and other pains, paralysis, sciatica, and chronic rheumatism.

Dr. Corrigan uses a simple instrument, consisting of a thick iron wire shank, two inches long, inserted in a small wooden handle, and having on its extremity, which is slightly curved, a button of iron a quarter of an inch thick, and half an inch in diameter, the whole instrument being only six inches long. The face of the button for application is *quite flat.* If the instrument be larger than this, it will require too much time to heat it; if smaller, it will not retain the heat a sufficient length of time. In using the instrument, it is necessary to hold the button over the flame of a spirit-lamp, keeping the forefinger, which holds the wire, at the distance of half an inch from the button. As soon as the finger feels uncomfortably hot, the instrument is ready for use. It is applied as quickly as possible, the skin being tipped successively, at intervals of half an inch, over the whole affected part, as lightly and rapidly as possible, always taking care to bring the flat surface of the button fairly in contact with the skin. In this way, the process of firing a whole limb, or the loins, making about one hundred applications, does not occupy a minute. You can ascertain at once whether the heat be sufficient. If you look sideways at the spots as you touch them, you will observe that each spot the

iron has touched immediately becomes of a glistening white. The iron is never redhot, and does not make an eschar.—BRAITHWAITE'S *Retrospect*, No. 13, p. 55.

The use of the actual cautery as a caustic, extends back to the most ancient times, but the particular modes of its application belong more properly to the professed treatises on surgery than to a work of this kind.

Caustic Potash.

The *causticum commune acerrimum* is the pure potash; when mixed with lime, its activity is lessened, and it is then called Causticum commune mitius. For the best mode of applying this substance, see the remarks on Issues. As this caustic spreads rapidly and eats deeply, care should be taken not to leave it on too long, when in the neighborhood of large blood-vessels. When, however, we wish to arrest its effects, they may be neutralized at once by vinegar, or vinegar and water.

Common Caustic with Opium.

℞. Potassæ cum Calce, ʒij.
Pulveris Opii, ʒss.
Saponis Mollis, q. s.
Misce.—This preparation is employed for the same purpose as the common caustic.

Vienna Paste.

℞. Potassæ, ʒv.
Calcis, ʒvj.
Alcoholis, q. s.
Ut fiat magma.

The paste is spread on the part to be cauterized, and is allowed to remain for ten or fifteen minutes, while the surrounding skin is protected by adhesive plaster.

Lunar Caustic.

This caustic is the *Argenti Nitras* deprived of its water of crystallization, fused and cast into moulds. Its mode of application is universally known. It is free from the inconvenience of the former.

Burnt Alum.

The *Alumen Ustum* is made by depriving this salt of its water of crystallization by heat. It is applied in powder to the fungous granulation of ulcers; and, mixed with an equal part of powdered sugar, is used to remove specks or nebulæ of the cornea.

Chloride of Zinc.

This is a powerful escharotic, and is safe and certain in cases that require the destruction of a considerable thickness of the living tissues; "never causing violent pain in the affected parts, or any kind of irritative fever, or disorder of the digestive organs."

"The chloride of zinc may be applied as a caustic by means of a moistened hair pencil, either alone or mixed with an equal portion of oxide of zinc, or sulphate of lime, or according to the following form:—

Canquoin's Caustic Paste.

℞. Zinci Chloridi, partem, j.
Farinæ, partem, jss.
Antimonii Terchloridi, partem, ss.
Aquæ, q. s.
Ut fiat pasta." DUNGLISON'S *New Remedies*, 6th *ed.* p. 694.

Caustic Paste of Chloride of Zinc.

℞. Zinci Chloridi,
Calcis Sulphatis, āā ʒss.
Misce.—This preparation is very liable to deliquescence, to prevent which a little flour may be added at the time of applying it.

Mineral Acids.

The mineral acids are all escharotic, though seldom employed, on account of the difficulty of managing fluids when used in this way. *Nitric acid*, much diluted, is sometimes applied to foul ulcers in warm weather, to destroy the animalculæ which are apt to be generated in such sores.

Acid Nitrate of Mercury.

℞. Hydrargyri Pernitratis Liquoris, *Dub.* fʒss.
This is a powerful caustic, and is much employed in England and on the Continent to destroy malignant ulcerations, particularly those of a cancerous character. It is applied by means of a camel-hair pencil, and the parts are then covered with lint.

White Oxide of Arsenic, or Arsenious Acid.

℞. Acidi Arseniosi, ℈j.
Aquæ, fʒij.
Fiat solutio.

This solution is occasionally applied to cancerous sores, and was formerly used in a powder or paste as an empirical remedy. But it is now seldom employed, from the circumstance of its producing constitutional irritation. Sir Astley Cooper mentions cases in which, from its absorption when applied to open sores, partial if not complete paralysis of the limbs was the consequence.

Ointment of Arsenic.

℞. Acidi Arseniosi, ʒj.
Adipis,
Cerati Cetacei, āā ʒvj.
Melt the cerate and lard over a slow fire, and then pour it on the white oxide of arsenic, and triturate it in a glass mortar until it is *intimately* united. *Pharm. Chirurg.*—For cancers, &c.

In hot weather, arsenic may be advantageously rubbed up with basilicon, to prevent its spreading on the sound parts. A scruple of the one to half an ounce of the other, makes a strong ointment.

The same care is required in its use as in using the solution.

Dubois's Arsenical Powder.

℞. Acidi Arseniosi, ʒss.
Hydrargyri Sulphureti Rubri, ℥j.
Sanguinis Draconis, ℥ss.
Fiat pulvis.—Chiefly used in the French hospitals as a caustic to cancerous affections. RATIER.

Arsenic is sometimes applied in the form of a paste made with water, which is carefully laid over the part to be removed, and renewed according to circumstances. When the slough forms, it should be dressed with a poultice, or with cerate spread on lint. It acts rapidly and requires watching, a remark that applies equally to all these pastes.

Solution of Muriate of Ammonia, &c.

℞. Ammoniæ Muriatis, ℥j.
Aceti destillati, f ℥ij.
Aquæ, f ℥iv.
Fiat solutio.—To be applied to venereal warts.
BELL *on Venereal.*

Chromic Acid.

This acid has lately been employed in Germany as an escharotic. It is said to be efficient, manageable, and less painful

than the ordinary applications. A concentrated solution is applied by means of a glass rod. The solid chromic acid has to be used with care, on account of its penetrating action.

Moxa.

This is another method of using the actual cautery; and, as it is engaging the attention of physicians, we insert the usual mode of applying it. The Chinese employ this remedy by means of the mugwort. They separate this soft, lanuginous substance by beating, and form it into a cone; the base of this is attached, by being wetted, to the skin, and the point set on fire.

Dr. Boyle recommends dipping cotton in a strong solution of nitrate of potash, and inclosing pieces of it thoroughly dried in paper cylinders, about one inch in diameter, and another inch in height. Dr. Burne employs wood in a state of dry rot, touchwood. This only requires to be shaped properly, and burns, he says, with certainty and steadiness, and is preferable to the other modes suggested; some of which, as common cotton or lint, requiring the use of the bellows, and, when they have been dipped in nitre, demanding care to prevent the scintillations from injuring the surrounding parts.

The cylinders or cones of touchwood may be confined to the skin by a little adhesive plaster fixed to the edges.

It has been proposed to place pieces of cold iron in the neighborhood of the part while the moxa is burning, in order to render the sensations more vague, and therefore less painful.

Moxa is used in diseases of the spine, paralysis, &c. &c.

Sub-Class.—ISSUES AND SETONS.

These remedies are employed as substitutes for blisters, especially when a permanent discharge is desired.

There are three kinds of issues in common use, by either of which we may procure a discharge of purulent matter for any length of time that may be requisite. They are applied in different situations, according to circumstances, and some one of the following parts is generally chosen: the nape of the neck; the hollow of the deltoid muscle, and between the shoulders or over the ribs in front. In the inferior extremities they are most conveniently formed in the inside of the leg, either above or below the knee.

1. *Blister Issue.*

To form this issue, it is merely necessary to apply a blister to any part in the usual manner; the skin being thus removed, the discharge must be promoted by means of stimulating ointments, as unguentum cantharidis, ceratum resinæ, ung. sabinæ, etc. These may be alternated with mild liniments, in order to prevent the ulceration and consequent discharge from becoming excessive.

2. *The Pea Issue.*

There are two modes of forming this issue; the first is made by means of a lancet; the part is merely taken in the thumb and finger, and an incision made by passing the lancet through the skin. The wound should be kept open by means of orange peas, the common pea, a bean, or a bit of orris root.

The second is formed with caustic potash.

The following extracts from the *Surgeon's Vade Mecum* will exemplify the manner of forming the issue with caustic:—

"The part is first to be covered with a piece of adhesive plaster, in the centre of which a circular hole has been cut of the size of the intended issue; in this hole the caustic *kali purum*, made into a paste with soap, is to be placed. The whole is then to be covered with another plaster, secured by a bandage, and suffered to remain for *ten* or *twelve* hours. Generally, in two or three days an eschar begins to separate, when the opening should be filled with the substance made choice of." These substances are enumerated above.

3. *The Seton.*

To form this artificial discharge, take the seton needle, to which is attached a skein of silk, the latter being partially anointed with some oleaginous substance. The needle is to be passed completely through the part chosen for the operation, after which it is removed, and the ends of the silk left hanging from the wound. It should be dressed every day, or twice a day, with some mild ointment; and if this be not sufficient to keep up the discharge, the more stimulating unguents may be used, as mentioned when speaking of the blister issue.

CLASS XVIII.

EPISPASTICS.

"By the ancients, all the external applications which redden or inflame the skin were called *Epispastics*, and these were designated according to the several degrees of effect: the slightest, entitled *phœnigmoi;* the next, *sinapismi;* the more active, *vesicatorii;* and the strongest, *caustici.*"

At the present day, the term is restricted to those articles which produce a serous discharge beneath the cuticle. The blister of common language.

As a general rule, blisters should remain on the patient six or eight hours, in order to insure their full effect. There are individuals, however, whose skins are so delicate, that a shorter application will answer every purpose; in children, it is seldom necessary to leave them on longer than three or four hours. When they are applied to the scalp, twelve hours are almost universally required; and Dr. Chapman directs the hair to be shaved, if possible, some hours before the application is made.

The usual dressing, when a blister is taken off, is basilicon ointment, or simple cerate, according to the urgency of the case, or irritability of the system. In order to keep it open, the weak epispastic, or savin ointment, will be found sufficient.

In acute disease, these remedies ought never to precede those means which have a tendency to reduce inflammatory action. It is generally admitted that, otherwise employed, they do harm; although there are individuals of acknowledged experience who say "they can bring the patient to the blistering point at pleasure," and in pleurisy, and some other acute diseases, apply them soon after a free bleeding. Blisters should be placed as near the affected part as possible. In fevers, they are usually put on the inside of the forearms or legs, back of the neck, or between the shoulders.

When the system is very prostrate, they should be applied

to the inside of the thighs, or the last two places mentioned; for, when the eireulation is languid in the extremities, they seldom draw well, and are even liable to produee gangrene by exhausting the little vitality that remains.

When, from peeuliarity of eonstitution, *strangury* is produced, we must take them off after three or four hours, and bathe the part with sweet oil, or apply a poultice, giving at the same time diluent drinks, sueh as flaxseed tea or barley water, with the sweet spirits of nitre; eamphor or parsley tea; bladders also, half filled with warm water, should be applied to the pubes. An opium suppository or injection will be found very advantageous. A poultice of ground flaxseed or starch is often serviceable, and a warm bath affords a prompt relief. Prevention, however, is better than eure; and in irritable eonstitutions, or in persons disposed to strangury, the blistering ointment, before being spread, should be rubbed up with three or four grains of opium, and three or four times as mueh camphor, before it is spread. This preventive seldom fails. Blisters are rendered mueh less irritating by eovering them with a fine gauze, whieh, if it be pressed in elose eontaet with the plaster, will not prevent or materially retard its operation. It is seldom necessary to keep a blister on longer than to *redden the skin*, when a simple poultiee will eomplete the vesication. In children, this preeaution is imperative.

Blistering Cerate.

℞. Cerati Cantharidis, q. s.
Ut fiat emplastrum epispasticum, 6 × 6.

Epispastic Ointment.

℞. Ceræ flavæ,
Resinæ,
Adipis, āā ʒvj.
Melt over a slow fire, and add slowly—
Pulveris Cantharidis ʒvijss.
Misee, et fiat unguentum.

In employing this ointment, or the preceding cerate, the margin of the blister should be eovered with adhesive plaster, in order to eonfine it to its plaee, and prevent its creating uneeessary irritation. Another mode is to draw straps across it diagonally, whieh plan we generally prefer; it prevents the blister from rising in the middle, and thereby partially defeating its object.

Instantaneous Vesication.

The French practitioners have a process for raising an instant blister. A piece of linen or paper, being cut to the requisite size, is immersed in spirits of wine or brandy, or even Cologne water, oil of turpentine, or spirits of camphor, whichever is most readily obtained. It is then laid on the part to be blistered, taking care that the moisture does not wet the surrounding surface. The flame of a lighted taper is then applied quickly over the surface of the paper so as to cause ignition, which is almost instantaneous. At the conclusion of this operation, the cuticle is found detached and raised from the true skin beneath.

Cantharidin.

This substance, more or less impure, has been used during the last few years, as a substitute for the common blistering cerate. The pure cantharidin is too expensive for general use, but an impure article, sufficiently concentrated for ordinary purposes, can be readily obtained. The cantharidin blistering tissues, and vesicating taffetas, now offered for sale, are of this character:—

Ether Cantharidalis, or Green Oil of Flies.

℞. Pulveris Cantharidis, partem unam.
Ætheris, partes duas.
Digere per dies tres et exprime.

If this extract be applied twice without any admixture, by means of a hair pencil, it produces, in children, free vesication in an hour or two; and if applied three times in an adult, the same effect takes place in three or four hours. The ether evaporates, and the remaining green fixed oil operates like the cantharides in substance. OETTINGER.

Collodium Vesicans.

℞. Ætheris Cantharidalis (prepared as above),
Collodii, partes æquales.
Misce.

It is computed that two scruples of this collodium are equal to four drams of common blistering plaster. It is applied by a brush two or three times over the affected part.

OETTINGER.

Extract of Cantharides.

During the past winter (1853), a simple aqueous extract of Spanish Flies, prepared by Professor Procter, was used extensively in the Pennsylvania Hospital, and found to be a most efficient substitute for the blistering cerate. The application of it for six hours raised as free a blister as the cerate did in eight.

Since the discovery, by the same gentleman, that cantharidin is soluble in oil, oleaginous extracts have been devised, thus proving the general correctness of Galen's plan of preparing an ointment by macerating the entire insect in melted lard for twenty-four hours, and then straining by expression. An oleaginous extract, prepared by digesting the powdered flies in melted lard, is a most efficient substitute for the officinal cerate.

CLASS XIX.

RUBEFACIENTS.

The substances called Rubefacients not unfrequently vesicate on very delicate skins. The term, therefore, is relative. They are employed for the same purpose as blisters, and are often good substitutes for them.

Mustard Plaster.

℞. Pulveris Sinapis, ℥ij.
Aquæ tepidæ, q. s.
Ut fiat cataplasma.

It is a very general practice to use vinegar in making this plaster, but if the mustard be pure, the chemical reactions, on which the irritant properties chiefly depend, are better developed with water than vinegar. In fact, a high heat, or the use of a strong acid solution materially checks the process.

The uses of the mustard poultice are too well known to require description. It is frequently made by adding an equal quantity of wheat or rye flour; this should always be done for children, or other persons of delicate skins. It cannot generally be borne longer than a half hour or hour.

Garlic Cataplasm.

The garlic cataplasm is employed with the same intention as the mustard, though much less active. It may be made by bruising the cloves of garlic, and mixing them in a common poultice of bread and milk. Onions may be substituted for garlic.

Cataplasm of Mustard, Pepper, &c.

℞. Seminum Sinapis contus. ℔ss.
Pulveris Piperis Nigri,
——— Zingiberis, āā ℥j.
Aquæ bullientis, q. s. ut fiat cataplasma.
To be applied to the region of the stomach in severe pain or sickness; or to the soles of the feet when revulsion is required.

Spice Plaster.

℞. Pulveris Caryophylli,
——— Cinnamomi,
——— Capsici, āā ℥ss.
Misce, et adde—
Farinæ,
Spiritûs Vini Gallici, āā q. s. ut fiat cataplasma.
Let the plaster, thus prepared, be applied hot to the epigastric region.

Clove Plaster.

Quilt some powdered cloves in flannel, and wring them out in hot brandy. Thus prepared, they form an excellent external application in colic, and in irritability of the stomach, &c.

Warm Strengthening Plaster.

℞. Picis Burgundicæ, ℥v.
Unguenti Cantharidis, ℥j.
Fiat emplastrum secundem artem.—This plaster is very irritating, and sometimes draws a blister.

Mercurial Ointment, Camphor, &c.

℞. Unguenti Hydrargyri, ℥j.
Olei Terebinthinæ,
Camphoræ, āā ℥ij.
Cerati Simplicis, ℥j.
Fiat unguentum secundum artem. Used as a rubefacient over the hypochondriac region, when blisters are precluded.

Tartar-emetic Plaster.

This may be made by sprinkling the powdered Tartrate of Antimony and Potash on the surface of a Burgundy pitch or adhesive plaster, or on one made by spreading basilicon, or simple ointment, on leather or linen. In either way the margin should be left clean.

Tartar emetic requires a longer time to produce its effect than the ordinary blister; the irritation is of a peculiar and very painful kind, and its effects must be watched with extreme care.

Tartar-emetic Ointment.

℞. Antimonii et Potassæ Tartratis, ℥j.
Adipis, ℥j.
Misce secundum artem.

This ointment, when applied to the skin, is a slow but certain means of exciting an eruption. We have given the formula of Dr. Hannay, of Glasgow, in Scotland. The officinal formula is two drams to the ounce, a better strength for ordinary purposes.

Tartar-emetic and Corrosive Sublimate.

℞. Antimonii et Potassæ Tartratis, ʒj.
Hydrargyri Chloridi Corrosivi, gr. v.
Aquæ, f ʒj.
Spiritûs Lavandulæ Compositi, f ʒj.
Solve sales in aqua, dein adde spiritum.

This solution is applied by wetting the fingers with it, and rubbing it on the part. The rubbing should be continued for five or ten minutes, and after some hours a pustular eruption will appear.—Dr. Hannay's essay, *De Tartratis Antimonii usu externo*, p. 26.

It has been used in pertussis, dyspnœa, catarrh, &c., and in the removal of incipient tumors.

It has been ascertained by the illustrious Jenner and others, that tartar emetic, employed for an undue length of time externally, will produce violent effects on the system.

We find in a note in Beck's *Medical Jurisprudence*, vol. ii. p. 283, that Dr. Francis mentions two cases wherein tartar-emetic ointment, excessively used, produced effects similar to those at times arising from the outward application of arsenic. Magendie and Brodie ascertained by experiments upon animals, that inserted into wounds its effects resemble those produced by internal exhibition.

Granville's Antidynous Lotions.

These preparations act with great celerity, and are now in common use. They are formed of *three ingredients*, mixed in certain proportions, according to the urgency of the case.

Viz. 1. Of a saturated solution of ammonia; 2. Of the spirits of rosemary; and 3. Of spirits of camphor.

1. *The milder Ammoniated Lotion.*

℞. Liquoris Ammoniæ fortioris, f ʒj.
Spiritûs Rosmarini, f ʒvj.
Tincturæ Camphoræ, f ʒij.
Misce.

The stronger Ammoniated Lotion.

℞. Liquoris Ammoniæ fortioris, f℥x.
Spiritûs Rosmarini, f℥iv.
Tincturæ Camphoræ, f℥ij.
Misce.

The only point in which these formulæ differ from the original ones by Dr. Granville is in the preparation of the spirit of rosemary. Our pharmacopœia directs the oil of rosemary to be dissolved in alcohol. "Dr. Granville had it prepared by taking two lbs. of the tips or small leaves of fresh rosemary, and eight pints of alcohol, which are infused together for twenty-four hours in a covered vessel, and after adding as much water as will first prevent the empyreumatic smell, distil over *seven* pints."

As to the method of applying these counter-irritants, we shall use the words of their inventor, Dr. Granville. "First, impregnate with the colorless and transparent liquid, either a piece of linen folded six or seven times to the size of the part intended to be covered, or a piece of thick and coarse flannel; and, secondly, lay either of them on the spot, pressing with the hand at the same time, very steadily and firmly, the said linen or flannel, over which there should be placed a thick towel, doubled several times, so that not only the evaporation of the lotion may be impeded, but the hand employed in pressing the application to the part may not suffer damage from any evaporation, or from contact with the liquid. In some parts of the body more convenient than the others, the readiest and most effectual mode of pressing down the application is, by tying over it a towel or thick bandage; but to this mode there is the objection that we cannot, under certain circumstances, infect the part as quickly and as often as required, so as to judge, from the effect of the application, when to stop, or how long to persevere in using it."[2]

When applied to the temples, forehead, jaws, or chin, great care must be taken to prevent the effluvia from affecting the eyes and nostrils. The skin should be examined in a minute or two after the application, in order to see the effect produced. When the pain is severe after the lotion is removed, simple diluent washes, and warm water, which is perhaps the best, will speedily allay it. Vesication will generally take place in from two to five minutes, and even in a minute in some persons; but where cauterization is requisite, ten or twelve minutes may be necessary. The irritated or denuded surface may be dressed

[2] Granville. Counter-Irritation, its Principles and Practice, p. 39.

according to existing indications, with a simple poultice, tepid fomentations, cerate, or irritating ointments.

Gondret's Pommade Ammoniacale.

℞. Adipis, partes xxxij.
Olei Amygdalæ, partes ij.
Liquoris Ammoniæ (*sp. gr.* 0.905), partes xvij.

Melt the lard, mix the oil with it, and pour them into a wide-mouthed phial with a glass stopper; then add the ammonia, close the bottle, mix the contents together by shaking, and keep the mixture in a cool place. If the skin is to be excited, perspiration to be re-established, or some subcutaneous engorgement to be dissipated, light and hasty practices accomplish these objects. If a rubefacient effect is desirable, spread the ointment thickly on linen, and apply it for one or two minutes. For vesication, continue the application for five or six minutes; and, by a farther continuance, absolute cauterization is speedily produced.

These powerful preparations are used in a great variety of diseases, and in all cases when speedy and powerful counter-irritation is demanded; as in neuralgia and rheumatic affections generally, both acute and chronic; spasms, convulsions, gout, paralysis, inflammatory diseases of internal organs, diseases of the heart, sprains, &c. &c.

Solution of Caustic Potash.

℞. Potassæ, ℥iss.
Aquæ, f℥ij.
Fiat solutio.—Applied to the spine in tetanus.

Dr. Joseph Hartshorne speaks in high terms of the beneficial effect of this solution in the above disease. The best mode of applying it, so as merely to produce a rubefacient action, is to tie a piece of sponge to a stick or common table fork, and apply it from the nape of the neck to the sacrum. When the solution is strong, the effect is powerful.

Tincture of Cayenne Pepper.

℞. Pulveris Capsici, ℥ij.
Alcoholis Diluti, f℥viij.
Misce.—This preparation forms an excellent rubefacient in low fever. Dr. Chapman recommends it strongly in sciatica and other rheumatic affections.

Turpentine Liniment.

℞. Olei Terebinthinæ, f℥ij.
—— Olivæ, f℥ij.
Tincturæ Camphoræ, f℥j.
Liquoris Ammoniæ, f℥j.
Fiat linimentum.

Decoction of Turpentine and Cantharides.

℞. Pulveris Cantharidis, ℥j.
Olei Terebinthinæ, f℥viij.
Digest together for three hours, then filter.

This is the process usually followed by our apothecaries; but we conceive thirty minutes' boiling would be quite sufficient, and the cantharides be less likely to be injured by the heat. It was first made by Dr. Hartshorne of this city, who has used it with great success in the typhoid state of fever. It is merely rubbed over the surface of the body. S. G. Morton.

Liniment of Cantharides, &c.

℞. Camphoræ, ℥iij.
Solve in Decocti Cantharidis cum Terebinthinâ f℥ss.—et adde—
Unguenti Hydrargyri,
———— Simplicis, āā ℥j.
Fiat linimentum.—This preparation is employed in low fever, when it is desirable to rouse the system, and at the same time affect it with mercury; also in tumors.

Liniment of Croton Oil.

℞. Olei Tiglii,
—— Olivæ, āā f℥ss.
Fiat linimentum.—Croton oil is one of our safest and most efficient rubefacients. Rubbed for a few minutes, or sometimes even for a few seconds, on the skin, it produces irritation and redness, followed in some hours by a pustular eruption. If the effect is too severe at first, it is readily counteracted by a poultice, preceded by washing with mild soap and water to remove the oil. In some persons the oil may be applied pure.

Volatile Liniment.

℞. Olei Olivæ,
Liquoris Ammoniæ, āā f℥j.
Misce.—Applied to the neck in inflammation of the throat.

Soap Liniment, &c.

℞. Linimenti Saponis Camphorati, f ℥ij.
Liquoris Ammoniæ, f ℥j.
Tincturæ Opii, f ℥ss.
Fiat linimentum.—To be used as above.

Iodine Paint.

℞. Iodinii, gr. lxiv.
Potassii Iodidi, gr. xxx.
Alcoholis, f ℥j.
Fiat solutio. KING'S COLLEGE HOSPITAL.

Iodine is one of our best rubefacients and counter-irritants. This and the following formula furnish solutions that prove satisfactory in practice.

Ethereal Solution of Iodine.

℞. Ætheris, f ℥j.
Potassii Iodidi, gr. xv.
Iodinii, q. s. ad saturandum.
Misce.

"It is applied in the same way as the tincture, by means of a camel-hair pencil rubbed over the part, until it begins to produce a burning sensation in the part; then cover it with a pledget of wadding so as to prevent evaporation."

R. THOMSON.

Liniment with Croton Oil and Potash.

℞. Olei Tiglii,
Liquoris Potassæ, āā ♏xv.
Misce, et adde—
Aquæ Rosæ, f ℥j.
Fiat linimentum.

This may be rubbed on the affected part twice or three times a day, until minute pustules appear. JAMES ALLEN.

Cowhage Ointment.

℞. Mucunæ, gr. viij.
Adipis, ℥j.
Fiat unguentum.

The ointment must be rubbed in from ten to twenty minutes. The immediate effect is a sensation resembling stinging with nettles, but this passes off in less than half an hour. The skin generally becomes covered with white flat papulæ which soon disappear.

It is used in the same cases as tartar emetic or the Croton oil liniment. BLATIN.

CLASS XX.

ANOMALOUS EXTERNAL APPLICATIONS.

It was the original intention of the Author of this work to arrange all the prescriptions, whether for internal or external use, under their appropriate therapeutic heads, and a few of the earlier editions conformed, more or less, to that view. But the introduction of a great number of new remedies, the true value of which can only be determined by careful trials, has caused much difficulty in arranging them properly in that respect. This remark is particularly applicable to the host of articles used, under various forms, in the skin diseases. To remedy this, and to facilitate reference as much as possible, the Editor of the tenth edition has added three new classes, of which the present constitutes one. Class XX. is arranged on a pharmaceutical, rather than a therapeutical basis, and its subdivisions are named according to the form of preparation employed. Viz. Collyria, Injections, Gargles, Liniments, Ointments, Cataplasms, Baths, Fomentations, and Fumigations.

A.—COLLYRIA.

These are preparations applied to the eyes. They are sometimes dry, but generally liquid—consisting of infusions, decoctions, or distilled waters, with the addition of various substances.

POWDERS.

Dry Collyrium of Oxide of Zinc and Sugar.

℞. Sacchari,
Zinci Oxidi, āā partes æquales.
Tere in pulverem. M. Recamier.

Dry Collyrium of Red Precipitate, &c.

℞. Sacchari, ʒij.
Hydrargyri Oxidi Rubri, gr. x.
Zinci Oxidi, ℈j.
Fiat pulvis subtilissimus. DUPUYTREN.

This and the preceding powder are used in opacities of the cornea, by blowing them into the eye through a quill.

Dry Collyrium of Opium, &c.

℞. Pulveris Opii, gr. iv.
Hydrargyri Chloridi Mitis,
Sacchari, āā ℈j.
Tere bene.

These compounds are blown into the eyes for the removal of specks on the cornea resulting from inflammation.

Powder of Blue Vitriol, &c.

℞. Cupri Sulphatis,
Boli Armeniæ, āā ʒj.
Camphoræ, ʒij.
Fiat pulvis.—Put ʒj. of this powder into a pint of boiling water; filter the solution, and mix ʒj. of it with ʒj. of clear water, and apply it to the purulent eyes of infants by means of a syringe, *pro re nata*. COOPER'S *Surgery*.

Lapis Divinus.

℞. Aluminis,
Potassæ Nitratis,
Cupri Sulphatis, } āā ʒj.
Camphoræ, ʒss.

The alum, nitre, and sulphate of copper are to be fused together in a glazed earthen crucible, to drive off the water of crystallization, and the camphor is to be added near the end of the process. The cold mass is to be broken in pieces, and preserved in a closely stoppered bottle. This article is much employed on the Continent as an eyewash, in the strength of two grains and upwards to a fluidounce of distilled water.

SOLUTIONS AND MIXTURES.

Alum Collyrium.

℞. Pulveris Aluminis, gr. xij. vel xx.
Aquæ Rosæ, fʒiv.
Fiat solutio.—To be applied to the eye in chronic inflammation.

Collyrium of Iodide of Potassium.

℞. Aquæ Rosæ, f℥vj.
Potassii Iodidi, gr. xxiv.
Iodinii, gr. j. vel ij.
Fiat collyrium. To be applied to the eyes three or four times in the day. In scrofulous ophthalmia, and ulcerations of the cornea and conjunctiva. RYAN.

Collyrium of Green Vitriol.

℞. Ferri Sulphatis, gr. ij.
Aquæ, f℥j.
Fiat solutio.—Used in chronic ophthalmia.

Collyrium of Subacetate of Lead, &c.

℞. Liquoris Plumbi Subacetatis, gtt. xij.
Vini Opii, gtt. xl.
Aquæ Rosæ, f℥iv.
Fiat collyrium.—This should not be used when there are ulcers on the cornea.

Collyrium of Vinegar, &c.

℞. Aceti destillati, f℥j.
Alcoholis, f℥ss.
Aquæ Rosæ, f℥viij.
Fiat mistura. *Signa.*—To be applied to weak eyes, and to ophthalmia after depletion.

Collyrium of Acetate of Zinc.

℞. Zinci Acetatis, gr. iv.
Aquæ Rosæ, f℥j.
Fiat solutio.—Used like the preceding.

Opiate Collyrium.

℞. Pulveris Opii, gr. j.
Camphoræ, gr. v.
Mucilaginis Acaciæ, f℥j.
Misce, et fiat collyrium.

Alum Curd.

℞. Pulveris Aluminis, ℥ss.
Albumen unius Ovi.
Agitate them well until a coagulum be formed.—To be applied on a linen rag to inflamed eyes. It should be removed in three or four hours.

Collyrium of Nitrate of Silver.

℞. Argenti Nitratis, gr. j. vel ij. ad gr. xx.
Aquæ destillatæ, f℥ij.
Fiat solutio.—In acute ophthalmia, and to promote the absorption of nebulæ of the cornea.

Collyrium of Sulphate of Cadmium, &c.

℞. Cadmii Sulphatis, gr. iij.
Aquæ Rosæ, f℥ij.
Vini Opii, f℥j.
Fiat mistura.—Used for opacities of the cornea, and in chronic ophthalmia.

The quantity of sulphate of cadmium is gradually increased to four grains in an ounce. FRONMÜLLER.

Collyrium of Sulphate of Copper.

℞. Cupri Sulphatis, gr. vj.
Camphoræ, ℥j.
Aquæ ferventis, f℥viij.
Rub the camphor with the water, then strain, and add the sulphate of copper.

This is nearly the same as the formula recommended by Mr. Ware in the treatment of purulent ophthalmia.

Strychnia Collyrium.

℞. Strychniæ, gr. ij. vel iv.
Acidi Acetici diluti,
Aquæ destillatæ, āā f℥j.
Fiat solutio.—A drop or two, diluted or not according to circumstances, to be applied to the eye several times a day.
DR. RYAN *on Amaurosis.*

Collyrium of Corrosive Sublimate.

℞. Hydrargyri Chloridi Corrosivi, gr. ij.
Aquæ destillatæ, f℥viij.
Fiat solutio.

The above may be advantageously used in gonorrhœal ophthalmia, as also in that of a scrofulous character.

Collyrium of Opium and Camphor.

℞. Extracti Opii, gr. x.
Camphoræ, gr. vj.
Aquæ ferventis, f℥xij.
Rub the camphor and opium well together in a mortar, and add the water. Then strain before using.

Conradi's Collyrium.

℞. Hydrargyri Chloridi Corrosivi, gr. j.
Decocti Cydonii, *Lond.* f℥j.
Aquæ Rosæ, f℥vj.
Vini Opii, f℥j.
Fiat mistura.

This collyrium is praised by most of the German oculists in cases of chronic ophthalmia.

Bates's Camphorated Water.

℞. Cupri Sulphatis,
Boli Armeniæ, āā gr. viij.
Camphoræ, gr. ij.
Aquæ bullientis, f℥viij.
Fiat infusum et cola.

This is used as a lotion in the purulent ophthalmia of infants.

Collyrium of Acetate of Ammonia and Camphor.

℞. Liquoris Ammoniæ Acetatis, f℥ij.
Aquæ Camphoræ, f℥vj.
Misce. *Signa.*—For eyes requiring a mild astringent and stimulant application.

Collyrium of Acetate of Ammonia with Opium.

℞. Liquoris Ammoniæ Acetatis, f℥ij.
Aquæ ferventis, f℥vj.
Extracti Opii, gr. x.
Dissolve the extract of opium in the hot water, strain, and add the solution of acetate of ammonia. In acute ophthalmia, when considerable pain remains after depletion.

Emollient Collyrium.

℞. Radicis Althææ, ℥ij.
Aquæ destillatæ, Oj.
Infuse for three hours near the fire, and strain.—In inflammation of the conjunctiva accompanied with violent irritation.

Collyrium of Poppies, &c.

℞. Decocti Papaveris, *Lond.* f℥iv.
Aquæ Rosæ,
——— Camphoræ, āā f℥ij.
Misce.—Either of the last two collyria is adapted to the early stages of ophthalmia.

These collyria can be most successfully applied to the eyes by introducing the point of a small syringe into the outer angle, and gradually injecting them.

Anodyne Collyrium.

℞. Colchici Radicis contusi, ℥j.
Infusi Lini bullientis, f℥iv.
Tincturæ Opii, f℥j.
Fiat mistura.—For ophthalmia accompanied with great sensibility. M. Jadelot.

Collyrium with Conia.

℞. Coniæ, partes ij.
Alcoholis, partes xiij.
Aquæ destillatæ, partes cc.
Fiat solutio.—Employed in scrofulous ophthalmia, with intolerance of light, by rubbing it around the orbits, or dropping it in the eye several times a day.

Conia, the active principle of conium maculatum, is a most virulent poison, and therefore care is requisite, even in its external use. Fronmüller.

Guthrie's Ointment.

℞. Argenti Nitratis, gr. ij. ad x.
Liquoris Plumbi Subacetatis, gtt. xv.
Unguenti Cetacei, *Lond.* ℥j.
Fiat unguentum.

"The manner of using the ointment, is by introducing between the lids a portion, larger or smaller, as the case may seem to require it, from the size of a large pin's head to that of a garden pea." Guthrie.

Ointment of Red Precipitate, &c.

℞. Hydrargyri Oxidi Rubri, gr. x.
Zinci Sulphatis, ℈j.
Adipis, ℥ij.
Fiat unguentum.

Recommended by Professor Dupuytren, in obstinate chronic ophthalmia depending on a scrofulous diathesis.

B.—INJECTIONS.

Injections are liquid compositions of emollient, astringent, or stimulating substances. The parts into which they are thrown are the external auditory passages, the canal of the urethra, the bladder, and also fistulous cavities, the tunica vaginalis in the case of hydrocele, and the vagina.

A.—FOR THE EAR.

Injection with Camphor, &c.

℞. Camphoræ, ʒiv.
Olei Cajuputi, fʒvij.
—— Amygdalæ, fʒxv.
Tere simul.—A few drops to be dropped in the ear, in cases of dulness of hearing, from hardened wax, or dryness of the membrane. RADIUS.

Goulard's Extract, and Rose Water.

℞. Liquoris Plumbi Subacetatis, fʒj.
Aquæ Rosæ, fʒj.
Misce.—This is to be dropped into the ear until the meatus is full, and be allowed to remain there for a few minutes.
WILDE.

Mixture with Bates's Alum Water.

℞. Liquoris Aluminis Compositi, *Lond.* fʒj.
Aquæ Rosæ, fʒj.
Misce.

Used in otorrhœa, in the same way as the preceding.
WILDE.

Mixture with Aqua Sappharina.

℞. Liquoris Cupri Ammonio-Sulphatis, *Lond.* fʒj.
Aquæ destillatæ, fʒj.
Misce.

Like the preceding, this is used as an astringent in otorrhœa.
WILDE.

Solution of Nitrate of Silver.

℞. Argenti Nitratis, gr. x.
Aquæ destillatæ, f ʒj.
Fiat solutio.

Used in simple otorrhœa by painting the meatus and membrana tympani with a fine camel-hair pencil, dipped in the solution, every second or third day; and one of the three foregoing solutions is used in the interim, night and morning.

WILDE.

Injection of Pyroligneous Acid.

℞. Acidi Pyrolignei, *Dub.* f ʒij.
Aquæ destillatæ f ʒvj.
Fiat injectio.—To be injected twice a day with a silver syringe, in purulent discharge from the meatus auditorius.

BUCHANAN *on the Ear.*

Injection of Catechu.

℞. Catechu, gr. xij.
Aquæ bullientis, f ʒvj.
Fiat injectio.—To be used four or five times a day. *Idem.*

Pyroligneous Acid, Ether, &c.

℞. Acidi Pyrolignei, *Dub.*
Spiritûs Ætheris Sulphurici, *Ed.*
Olei Terebinthinæ, āā partes equales.
Misce. *Signa.*—Introduce two drops into the meatus auditorius every night, when the cerumen is deficient in quantity.—*Idem.*

Oxgall and Peruvian Balsam, for the Ear.

℞. Fellis Bovini, f ʒiij.
Balsami Peruviani, f ʒj.
Misce.—To be dropped occasionally into the ear to correct a fetid discharge, syringing the ear every day with a weak solution of soap and water. DR. HUGH SMITH.

Injection of Creasote.

℞. Creasoti, gtt. ij. vel iv.
Syrupi, f ʒj.
Aquæ, f ʒvij.
Misce.

To be used like the foregoing. EDITOR.

Solution of Nitrate of Silver.

℞. Argenti Nitratis, ʒss.—j.
Aquæ destillatæ, f ʒj.
Misce.

We have given above a weaker formula for the application of lunar caustic to the membrani tympani. The present solution is intended to be applied every third day to the *outer half* of the meatus, and adjacent portion of the concha, in chronic inflammation or thickening of the membrane lining the tympanic cavity. J. Toynbee.

Solution of Sulphate of Cadmium.

℞. Cadmii Sulphatis, gr. viij.
Aquæ, f ʒj.
Fiat solutio.

Used in otorrhœa. Lincke.

B.—FOR THE URETHRA.

When injections are employed in the cure of gonorrhœa, two circumstances merit especial attention, viz., the manner of injecting them and the frequency of using them. When the common syringe is used, the pipe should be perfectly smooth, short and conical, so that it cannot pass more than a quarter of an inch into the urethra. The patient should oil the pipe before using it, seat himself on the edge of a chair so as to avoid pressing the perineum, draw the penis forward on the syringe with the left hand, and throw up the injection to the seat of disease (previously ascertained) with the other. As respects the frequency of injecting, it may be observed, that five or six times a day are not too often, and that the cure will be retarded by using these remedies at longer intervals. We cannot forbear remarking that gonorrhœal inflammation, situated near the extremity of the penis, can be often cured by a *routine plan;* but when seated higher up the canal, and affecting Cowper's gland or the prostate, it becomes a serious disease, the cure of which ought not to be undertaken by persons ignorant of the structure of the parts and the nature of morbid action.

Nitrate of Silver.

This article is extensively used, both in gonorrhœa and gleet. Some practitioners employ a weak solution, of two or three grains, to the ounce of rose water, twice a day. Others prefer

ten grains to the ounce and employ the injection every second or third day. Another class prefer an ointment of ten or twenty grains to the ounce, and smear this over a bougie, which is then passed into the urethra. In acute gonorrhœa, either of the latter plans will frequently arrest the disease in a few days. In gleet, perhaps, the first plan is preferable.

Injection of Corrosive Sublimate, &c.

℞. Zinci Sulphatis, gr. x.
Hydrargyri Chloridi Corrosivi, gr. ij.
Aquæ Rosæ, f ℥viij.
Fiat injectio.—In gleet.

This powerful remedy should be employed with great caution.

Injection of Sulphate of Zinc, &c.

℞. Zinci Sulphatis, gr. x.
Pulveris Acaciæ, ℥ij.
Tincturæ Opii, f℥j.
Aquæ destillatæ, f℥viij.
Fiat injectio.—In gonorrhœa virulenta.

Injection of Muriate of Ammonia, &c.

℞. Ammoniæ Muriatis, gr. j. vel ij.
Hydrargyri Chloridi Corrosivi, gr. ij.
Aquæ destillatæ, f℥iv.
Fiat injectio.—In chronic gonorrhœa.

Injection of Acetate of Zinc.

℞. Zinci Acetatis, gr. viij.
Aquæ Rosæ, f℥iv.
Fiat injectio.—In gonorrhœa virulenta.

For all these preparations, rose water is an admirable menstruum; it possesses the advantages of being slightly astringent and rendered pure by distillation, and is therefore particularly applicable to the formation of injections and collyria.

Injection of Chloride of Zinc.

℞. Zinci Chloridi, gr. j. vel ij.
Aquæ, f℥j.
Fiat solutio.
Used in gonorrhœa. GODDARD.

Injection of Sulphate of Iron.

℞. Ferri Sulphatis, gr. viij.
Aquæ, f℥j.
Fiat solutio.
Used in gleet.

Injection of Iodide of Iron.

℞. Ferri Iodidi, ℥ss. vel j.
Aquæ, f℥viij.
Fiat solutio.
Used in blennorrhœa. RICORD.

Injection of Sulphate of Quinia.

℞. Quiniæ Sulphatis, gr. ij. ad viij.
Aquæ, f℥j.
Acidi Sulphurici diluti, q. s.
Ut fiat solutio.
Used in gonorrhœa. GODDARD.

Injection of Armenian Bole.

℞. Zinci Sulphatis, ℈j.
Boli Armeniæ, ℈ij.
Pulveris Acaciæ, ʒij.
Aquæ Rosæ, f℥viij.
Fiat injectio.—In gonorrhœa.

Injection of Calomel, &c.

℞. Hydrargyri Chloridi Mitis, ʒj.
Acaciæ, ʒij.
Tincturæ Opii, f℥ss.
Aquæ, f℥viij.
Fiat injectio.—For gonorrhœa or gleet.

Injection of Sulphate of Copper.

℞. Cupri Sulphatis, gr. vj.
Aquæ destillatæ, f℥vj.
Tincturæ Opii, fʒj.
Fiat solutio.—To be thrown up the urethra in chronic gonorrhœa.

Injection of Tea.

℞. Foliorum Theæ Viridis, ʒj.
Aquæ ferventis, f℥vj.
Fiat infusum et cola.—For an injection in gonorrhœa virulenta.

Injection of Ammoniated Copper.

℞. Cupri Ammoniati, gr. v.
Aquæ Rosæ, f℥viij.
Fiat solutio.—In chronic gonorrhœa.

Solution of Tannin.

℞. Acidi Tannici, gr. xxxij.
Aquæ destillatæ, f℥viij.
Solve.—Employed as a wash to chronic ulcers, and as an injection in obstinate blennorrhœa.—BERAL, *in* DUNGLISON'S *New Remedies*, 6th ed. p. 45.

Injection of Strychnia.

℞. Strychniæ, gr. j.
Acidi Nitrici, gtt. ij.
Aquæ, f℥j.
Fiat solutio. *Signa.*—Inject a dram three times a day after urination. Used in gleet. JOHNSON.

C.—GARGLES AND MOUTH WASHES.

Gargles, like injections, are astringent and stimulating; and to be of any service must be frequently applied, and persevered in for some time.

Gargle of Brandy.

℞. Spiritûs Vini Gallici,
Aquæ, āā partes æquales.
Brandy and water form an excellent gargle for some cases of inflamed fauces.

Gargle of Galls and Alcohol.

℞. Infusi Gallæ (℥ij. ad Oss.) f℥vij.
Alcoholis, f℥j.
Fiat gargarysma.—In relaxation of the uvula and soft palate. Should be applied with a camel-hair brush.

Gargle of Infusion of Oak Bark.

℞. Corticis Quercûs Albæ, ℥j.
Aquæ, Ojss.
Boil to a pint, and strain; then add—
Aluminis, ʒss.
Spiritûs Vini Gallici, f℥ij.
Misce.

Gargle of Sulphate of Quinia, &c.

℞. Quiniæ Sulphatis, gr. xij.
Cupri Sulphatis, gr. xvj.
Acidi Sulphurici Aromatici, f℥j.
Aquæ, f℥viij.
Fiat mistura. *Signa.*—To be used three or four times a day, in obstinate sore throat. JOS. HARTSHORNE.

Gargle of Borax, &c.

℞. Sodæ Boratis, ℥j.
Tincturæ Myrrhæ, f℥ss.
Mellis despumati, f℥j.
Aquæ Rosæ, f℥iv.
Fiat gargarysma.—To be used as a gargle or mouth wash, in ptyalism or scorbutic affections of the gums.

Gargle of Sulphate of Zinc, &c.

℞. Zinci Sulphatis, ℥j.
Mellis, f℥ss.
Tincturæ Myrrhæ, f℥j.
Spiritûs Vini Gallici, f℥j.
Aquæ Rosæ, f℥vj.
Fiat gargarysma.—To be applied to ulcerated gums, occasioned by excessive salivation. Water can be added if it be too strong.

In mercurial sore mouth, common lead water forms a most soothing and useful application. It makes the teeth black—an effect, however, which is only temporary.

Dr. Blake's Toothache Solution.

℞. Aluminis (in pulverem subtilissimum triturandum), ℥ij.
Spiritûs Ætheris Nitrici, f℥vij.
Fiat mistura.—Said by Dr. Blake, of London, to be an infallible cure for *toothache*, when not connected with rheumatism.

Gargle of Alum.

℞. Aluminis, ℥ij.
Aquæ, f℥iv.
Solve.—This is Dr. Cavarra's gargle for *fœtor oris*, or offensive breath.

Gargle of Pomegranate.

℞. Granati Fructûs Corticis, ℥ss.
Rosæ Gallicæ, ʒij.
Aquæ bullientis, f ℥vj.
Fiat infusum. Cola et adde—
Mellis despumati, f ℥j.
Aluminis, ʒij.
Fiat gargarysma.—For inflammation of the throat and fauces.

Muriatic Acid Gargle.

℞. Infusi Cinchonæ Rubræ, f ℥iv.
Mellis despumati, f ℥j.
Acidi Muriatici, gtt. x. vel xviij.
Fiat gargarysma.—In chronic inflammation, when the pain and swelling have been reduced by depletion.

RATIER'S *Formulary.*

Detergent Gargle of Sulphuric Acid, &c.

℞. Decocti Hordei, f ℥iv.
Mellis despumati, f ℥ss.
Acidi Sulphurici, gtt. x. vel xx.
Fiat gargarysma. RATIER.

Mercurial Gargle.

℞. Hydrargyri Chloridi Corrosivi, gr. j.
Mellis despumati, f ℥ss.
Aquæ destillatæ, f ℥iv.
Fiat solutio.—For venereal sore throat. RATIER.

Acetous Gargle.

℞. Acidi Acetici, fʒij.
Ammoniæ Muriatis, ʒj.
Mellis, f ℥iss.
Aquæ, f ℥xij.
Fiat gargarysma.—For inflamed fauces. RATIER.

Astringent Gargle of Acetate of Lead, &c.

℞. Plumbi Acetatis, ʒss.
Syrupi, f ℥j.
Decocti Hordei, Oj.
Fiat solutio.—In mercurial sore mouth, &c. RATIER.

Chloride of Lime Gargle.

℞. Calcis Chlorinatæ, ʒij.
Aquæ, Oj.
Solve et cola. Dein adde—
Mellis, f ʒj.
Misce.—Used in ulceration of the mouth and throat.

Disinfecting Mouth Wash.

℞. Calcis Chlorinatæ, ʒiij.
Aquæ destillatæ, f ʒij.
Tere simul et filtra. Dein adde—
Olei Rosæ, ♏v.
Alcoholis, f ʒij.
Mellis Rosæ, f ʒss.
Misce.—Used in mercurial sore mouth.

Cayenne Pepper Gargle.

℞. Tincturæ Capsici, f ʒss.
Aquæ Rosæ, f ʒviij.
Misce.—A stimulating gargle used in scarlet fever.
GRIFFITHS.

Mel Ægyptiacum.

℞. Linimenti Æruginis, *Lond.* f ʒj.
This is applied with a brush to venereal ulcers of the throat. Diluted with water (one dram to the ounce), it forms a detergent gargle.

Gargle with Iodine and Opium.

℞. Tincturæ Iodinii, f ʒj.—ij.
——— Opii, f ʒj.
Aquæ, f ʒvj.
Fiat gargarysma.
Signa.—To be well shaken when used.

This is employed three or four times daily in ulcerated sore throat.

Solution of Iodide of Zinc.

℞. Zinci Iodidi, gr. x.—xxx.
Aquæ destillatæ, f ʒj.
Fiat solutio.

Applied daily to enlarged tonsils, by a piece of sponge tied to a quill. J. J. ROSS.

Mixture of Sulphuric Acid and Honey.

℞. Acidi Sulphurici, f℥ss.
Mellis, f℥j.
Fiat linimentum.

Used for aphthæ, by touching the ulcerated surfaces frequently with a soft pencil.

Wash of Sulphate of Copper, &c.

℞. Cupri Sulphatis, ʒij.
Pulveris Cinchonæ, ℥ss.
Aquæ destillatæ, f℥iv.
Misce. *Signa.*—In the gangrenous sore mouth of children, applied to the full extent of the ulceration and excoriation.
DR. B. H. COATES.

Sulphate of zinc is often employed in like doses, in this affection.

Gargle of Alum, Sage Tea, and Honey.

℞. Foliorum Salviæ, ℥ss.
Aquæ bullientis, Oss.
Fiat infusum, et cola, dein adde—
Aluminis, ℥ss.
Mellis, f℥j.
Fiat mistura.

This domestic remedy is a very effectual one in cases of sore throat.

Linctus with Muriatic Acid, &c.

℞. Acidi Muriatici, f℥ss.
Mellis,
Aquæ Rosæ, āā f℥j.
Misce. *Signa.*—To be applied to scorbutic gums three or four times a day.

D.—LINIMENTS, LOTIONS, &c.

Lotion of Lime-water, Zinc, &c.

℞. Zinci Oxidi, gr. xij.
Cupri Sulphatis, gr. iij. vel iv.
Mellis, f℥j.
Liquoris Calcis, f℥ij.
Fiat lotio.—To be applied to phagedenic ulcers of the genitals.
Vide SWEDIAUR *on Syphilis.*

Liniment of Lime-water and Linseed Oil (Carron Oil).

℞. Olei Lini, f℥iij.
Liquoris Calcis, f℥vj.
Fiat linimentum.—To be applied to burns and scalds by means of a feather or soft rag.

Lotion of Lime-water and Alcohol.

℞. Alcoholis, f℥ij.
Liquoris Calcis, Oss.
Fiat mistura.—In the same cases as the above.

Lotion of Goulard's Extract of Lead, &c.

℞. Liquoris Plumbi Subacetatis, f℥j.
Tincturæ Camphoræ, f℥iij.
Aquæ, Oj.
Fiat lotio.—To be used as the former.

This compound is much recommended by some of the French surgeons. Applied by means of lint to old ulcers.

Lotion of Chloride of Zinc.

℞. Zinci Chloridi, gr. ij.
Aquæ destillatæ, f℥j.
Misce.—Applied on lint to chronic and indolent ulcers.

HANCKE.

Lotion of Sulphuret of Potassium, &c.

1. ℞. Potassii Sulphureti, ℥j. vel ℥ij.
Aquæ, Oj.
Misce.
2. ℞. Acidi Muriatici, f℥j. vel f℥ij.
Aquæ destillatæ, Oij.
Mix one ounce of each lotion with four ounces of warm water, and apply by means of a sponge. In psora.

M. ALIBERT.

Lotion of Subacetate of Lead.

℞. Confectionis Rosæ, ℥j.
Mellis,
Liquoris Plumbi Subacetatis, āā f℥ss.
Tincturæ Opii, gtt. lx.
Misce. *Signa.*—Applied to painful venereal ulcers, and to chancres after the use of lunar caustic.

Compound Lotion of Sulphuret of Potassium.

℞. Potassii Sulphureti, ℥ss.
Saponis Veneti, ℥j.
Alcoholis, f℥iv.
Tincturæ Myrrhæ, f℥ss.
Liquoris Calcis, Oj.
Fiat mistura secundum artem.—To be applied to the head night and morning, in tinea capitis. The hair must be shaved previous to its employment.

Solution of Phosphoric Acid.

℞. Acidi Phosphorici, ʒj.
Aquæ destillatæ, f℥viij.
Fiat solutio.

Dr. Lentin, a German physician, has employed this solution on compresses applied to ulcers situated over carious bones.—Spillan's *Supplement to the British Pharmacopœias.*

Astringent Fomentation.

℞. Radicis Bistortæ,
Granati Fructûs Corticis, āā ℥ij.
Ammoniæ Muriatis, ʒij.
Vini Rubri, Oj.
Misce. *Signa.*—For indolent inflammatory swellings.
Ratier's *Formulary.*

Lotions of Prussic Acid.

Prussic acid (Acidum hydrocyanicum dilutum) is used externally, in the proportion of ʒij. to Oj. of water, or other fluids. In cancerous ulcers; dartre; and injected into the vagina in cancer of the uterus.—See Magendie's *Formulary*, edit. 5th, p. 66.

Lotion of Corrosive Sublimate.

℞. Hydrargyri Chloridi Corrosivi, ʒj.
Aquæ, f℥vj.
Solve et adde—
Ammoniæ Muriatis, ʒij.
Potassæ Nitratis, ℥ss.
Fiat lotio.—Principally used as a wash in itch.
Good's *Study of Med.* vol. iv.

Yellow Wash.

℞. Hydrargyri Chloridi Corrosivi, gr. j. vel. iij.
Liquoris Calcis, f℥j.
Fiat solutio.

For ordinary purposes one grain to the ounce will be sufficient. In phagedenic and venereal ulcers.

Black Wash.

℞. Hydrargyri Chloridi Mitis, ℥j.
Liquoris Calcis, f℥iv.
Misce. *Signa.*—The bottle to be well shaken before using.

This prescription is used in the same cases as the other. The red oxide in that, and the black oxide of mercury in this, are precipitated by the lime-water. They are sometimes administered in the form of injections in gleet and gonorrhœa.

Lotion of Cyanuret of Potassium.

℞. Potassii Cyanureti, gr. xij.
Misturæ Amygdalæ, f℥vj.
Fiat lotio. In lichen, and other chronic eruptions.

Liniment of Chlorine.

℞. Chlorinii Liquoris, *Dub.* f℥j.
Olei Olivæ, f℥j.
Fiat linimentum.—Applied externally to itch, herpes, and tinea capitis. DUNGLISON'S *New Remedies*, 6th ed. p. 195.

Iodine Liniment.

℞. Linimenti Saponis Camphorati, f℥j.
Tincturæ Iodinii, f℥j.
Misce.

Creasote Liniment.

℞. Creasoti, gtt. x.
Olei Olivæ, f℥j.
Fiat linimentum.—In herpes, &c.

Creasote Lotion.

℞. Creasoti, gtt. x.
Aceti, f℥ij.
Aquæ destillatæ, f℥ij.
Fiat lotio.—Applied in phagedenic ulceration.

An admirable wash for herpetic eruptions may be prepared by mixing half an ounce of Wetherill's distilled creasote water with four times the quantity of pure water. This may be applied with safety to the skin of infants; but, if too active, it should be still farther diluted.

Camphorated Oil.

℞. Camphoræ, ℥j.
Olei Olivæ, f℥iv.
Tere simul, et fiat solutio; tunc adde—
Olei Terebinthinæ, f℥jss.
To be applied by rubbing with a piece of flannel. In deep-seated rheumatic pains.

Epithem with Tincture of Cantharides.

℞. Pulveris Cantharidis, ℥j.
Alcoholis, f℥iv.
Digere cum leni calore per dies duas, cola et adde—
Camphoræ, ℥ss.
Signa.—To be rubbed on the parts affected. In paralysis.

Epithem with Camphor and Carbonate of Ammonia.

℞. Tincturæ Camphoræ, f℥iv.
Ammoniæ Carbonatis, ℥ss.
Olei Juniperi,
—— Succini, āā f℥ij.
Misce.—To be employed in the same cases as the former.

Liniment with Camphor, &c.

℞. Tincturæ Camphoræ, f℥iij.
Acidi Acetici, f℥j.
Fiat embrocatio.—To be applied to bruises, rheumatic parts, &c.

Liniment with Ammonia and Olive Oil; vulgo, Volatile Liniment.

℞. Olei Olivæ,
Liquoris Ammoniæ, āā f℥j.
Misce.—Applied to the neck in inflammation of the throat.

Liniment of Ammonia and Tartarized Antimony.

℞. Linimenti Ammoniæ, f℥j.
Antimonii et Potassæ Tartratis, ℥j.
Misce.—Applied to indolent tumors, and other swellings.

Liniment of Oil of Amber, &c.

℞. Olei Succini, f℥ij.
—— Olivæ, f℥ss.
Tincturæ Opii, f℥ij.
Spiritûs Vini Gallici, f℥iij.
Fiat linimentum. *Signa.*—To be rubbed between the shoulders. In pertussis.

Liniment with Nux Vomica.

℞. Tincturæ Nucis Vomicæ, f℥j.
Liquoris Ammoniæ, f℥ij.
Misce.

This is applied by friction in paralytic and nervous diseases.
MAGENDIE.

Anti-psoric Lotion of Dupuytren.

℞. Potassii Sulphureti, ℥iv.
Aquæ, Oj.
Acidi Sulphurici, f℥iv.
Misce.—To be applied two or three times a day on the parts covered with pustules, and with this treatment the simple bath is conjoined.

Lotion of Myrrh.

℞. Tincturæ Myrrhæ,
Liquoris Calcis, āā f℥j.
Misce.

This lotion is recommended by Dr. Kirkland for removing fungous flesh.

Compound Opiate Liniment.

℞. Tincturæ Opii,
Spiritûs Ætheris Sulphurici, *Ed.*
Tincturæ Camphoræ, āā f℥ij.
Fiat embrocatio.—To be applied to rheumatic parts.

Also, in odontalgia, pain in the region of the ear, &c.

Opiate Liniment.

℞. Olei Olivæ, f℥ij.
Tincturæ Opii, f℥ij.
Liquoris Plumbi Subacetatis, f℥ss.
Misce.

Embrocation of Acetate of Ammonia.

℞. Ammoniæ Carbonatis, ℥ij.
Acidi Acetici, q. s. ad saturandum.
Alcoholis diluti, Ojss.
Mix the ammonia with the acid, and after effervescence ceases, add the spirit.

In rheumatic affections; or mixed with linseed meal, it may be used as a poultice to chronic inflammations of the joints, &c.

Compound Liniment of Petroleum.

℞. Petrolei Barbadensis, f℥j.
Camphoræ, ℥ss.
Alcoholis, gtt. xl.
Fiat linimentum.—Powder the camphor by adding the spirit, and then mix the whole in a mortar.

Glycerin.

This principle, which is demulcent and antiseptic, forms a very useful addition to lotions and gargles. It has been used extensively by Mr. Startin, surgeon to the London Cutaneous Institution, and he has published several formulæ for its employment. Two of them are subjoined.

Lotion with Borax and Glycerin.

℞. Sodæ Boratis, ʒss. ad ʒj.
Aquæ Rosæ, f℥vijss.
Glycerinæ, f℥ss.
Fiat mistura.
Used for chapped hands, fissures of the lips, and irritation of the skin of any kind.

Lotion of Ammonia, Glycerin, &c.

℞. Spiritûs Ammoniæ Aromatici, f℥j.
Glycerinæ, f℥ss.
Tincturæ Cantharidis, f℥j. ad f℥ij.
[1]Aquæ Rosmarini, f℥vij.
Misce. *Signa.*—To be used with a wet hair-brush once or twice a day.

Employed for alopecia following fevers, or for falling off of the hair, dryness or want of action of the scalp, thinness of the hair, &c. STARTIN.

Solution of Tartar Emetic.

℞. Antimonii et Potassæ Tartratis, ℈j.
Aquæ destillatæ, f℥j.
Fiat solutio.

Used to cleanse foul ulcers, and to repress fungous growths, and venereal warts. SIR W. BLIZARD.

[1] When aromatic waters are prescribed, which are not officinal, the compounder can readily prepare them by rubbing two drops of the essential oil, with a few grains of carbonate of magnesia, and a fluidounce of water, and then filtering the solution through bibulous paper. EDITOR.

Solution of Tannin.

℞. Acidi Tannici, gr. v.
Aquæ destillatæ, f ℥j.
Fiat solutio.

Used for sore nipples, by applying it to the part on lint covered with oiled silk. DRUITT.

Lotion of Green Vitriol.

℞. Ferri Sulphatis, ℥j.
Aquæ, Oj.
Fiat lotio.

Used in erysipelas, by applying it to the part every two or three hours. VELPEAU.

Lotion of Borax and Morphia.

℞. Sodæ Boratis, ℥ss.
Morphiæ Sulphatis, gr. vj.
Aquæ Rosæ, f ℥viij.
Fiat lotio.

Used in pruritus vulvæ. Wash the surfaces with soap and tepid water, and dry them before applying the lotion, which is to be done three times daily. C. D. MEIGS.

Lotion of Hyposulphite of Soda, &c.

℞. Sodæ Hyposulphitis, ℥j. ad ij.
Aluminæ Sulphatis, ℥j. ad ij.
Aquæ Rosæ, f ℥vijss.
Fiat lotio.

To the above a tablespoonful of some flavoring ingredient, as the Eau de Cologne, may be added. Used in acne by washing the part with a linen rag dipped in the solution twice or thrice a day. STARTIN.

Labarraque's Disinfecting Liquid.

℞. Liquoris Sodæ Chlorinatæ, f ℥ij.

This stimulant and antiseptic solution has been extensively employed in low forms of disease, as typhus, scarlatina maligna, &c. It is also used as a gargle, as an injection in coryza and ozæna, and as a wash for various foul ulcers. As a gargle or injection half a fluidram to an ounce of water, and as a wash one or two fluidrams to the ounce, are about the proper proportions.

E.—OINTMENTS.

Ointment of Red Precipitate.

℞. Hydrargyri Oxidi Rubri, ʒj.
Terebinthinæ Venetæ, ℥j.
Fiat unguentum.

This preparation is applied to indolent sores, and is thought by some practitioners to be a specific in itch.

Simple Iodine Ointment.

℞. Iodinii, gr. iij.
Adipis, ʒij.
Fiat unguentum.

Used as the preceding preparation.

Ointment of Iodide of Potassium.

℞. Potassii Iodidi, ℈j.
Cerati Simplicis, ʒj.
Fiat ceratum.

Applied to scrofulous swellings, when the skin is unbroken. It may also be used for tetter, and kindred eruptions.

Lugol's Ointment of Iodureted Iodide of Potassium.

℞. Iodinii, gr. xij.
Potassii Iodidi, ℈iv.
Adipis, ʒij.
Fiat unguentum.—Used in scrofulous ophthalmia, ulcers, &c.

Ointment of Iodide of Zinc.

℞. Zinci Iodidi, ʒj.
Adipis, ℥j.
Fiat unguentum.—A dram to be rubbed on twice a day. In tumors.

Dr. Ure recommends the above as a substitute for the ointment of iodide of potassium in glandular swellings.

Ointment of Iodide of Barium.

℞. Barii Iodidi, gr. iv.
Adipis, ℥j.
Fiat unguentum.
For scrofulous swellings. BIETT.

Ointment of Iodide of Iron.

℞. Ferri Iodidi, ʒiss.
Adipis, ℥j.
Fiat unguentum.

Ointment of Iodide of Sulphur.

℞. Sulphuris Iodidi, gr. xxv.
Adipis, ℥j.
Fiat unguentum.—In diseases of the skin. MAGENDIE.

Ointment of Iodide of Arsenic.

℞. Arsenici Iodidi, gr. iij.
Adipis, ℥j.
Fiat unguentum.
In lepra, impetigo, and other cutaneous affections. BIETT.

Ointment of Iodine and Calomel.

℞. Iodinii, gr. x.
Hydrargyri Chloridi Mitis, gr. xv.
Adipis, ℥j.
The iodine to be first united to the lard, and then the calomel added.

MM. Planck and Soubeiran, by whom this ointment is proposed, state that these are the only proportions that can be used, without leading to decompositions that will defeat the intention.

Ointment of Iodide of Mercury, &c.

℞. Hydrargyri Iodidi, gr. vj.
Morphiæ Acetatis, gr. viij.
Adipis, ℥j.
Fiat unguentum.

Recommended by the French physicians in glandular swellings. The morphia is supposed by them to prevent the unpleasant effects of iodine when used as an ointment.
PELLETAN.

Ointment of Red Iodide of Mercury.

℞. Hydrargyri Iodidi Rubri, ℈j.
Adipis, ℥jss.
Fiat unguentum.—Used to accelerate the cicatrization of inveterate venereal ulcers.

An ointment may be made in the same proportions of the *deutiodide of mercury;* but should be used with more caution.

Ointment of Red Iodide of Mercury.

℞. Hydrargyri Iodidi Rubri, gr. xv.
Adipis, ℥ij.
Olei Limonis, gtt. xx.
Fiat unguentum.
Employed as a curative application to syphilitic tubercles, chronic ulceration, and other sequelæ of venereal. Its great activity requires caution in its use. RATIER.

Ointment of Iodureted Iodide of Potassium with Opium.

℞. Iodinii, gr. xvj.
Potassii Iodidi, ℥j.
Tincturæ Opii, f℥ij.
Adipis, ℥ij.
Fiat unguentum.—Applied to scrofulous and other ulcers.
LUGOL.

Ointment of Cyanuret of Mercury.

℞. Hydrargyri Cyanureti, gr. xij. ad xvj.
Adipis, ℥j.
Fiat unguentum.—Used in herpes attended by inflammation and itching.

Mercurial Ointment.

℞. Unguenti Hydrargyri, ℥j.
One dram of this ointment to be rubbed on the inside of the thighs, before the fire.

Some physicians recommend the warm bath before using this ointment, while others consider it useless. We think the practice occasionally beneficial. The hands of the person rubbing it on should be enveloped in a bladder, or gloves made of oiled silk.

Mercurial Ointment with Camphor.

℞. Unguenti Hydrargyri, ℥j.
Camphoræ, ℥j.
Misce.—To be employed as the former.

White Precipitate Ointment.

℞. Hydrargyri Ammoniati, gr. xv.
Potassæ Nitratis, ℥ss.
Sulphuris, ℥j.
Bene terantur et adde—
Adipis, ℥ij.
Fiat unguentum.

This ointment has long been celebrated in the cure of itch.

Anti-herpetic Ointment.

℞. Hydrargyri Sulphatis Flavi, ʒj.
Tincturæ Opii, fʒj.
Sulphuris sublimati, ʒss.
Adipis, ℥j.
Fiat unguentum.—In herpes, alternated with the simple water bath.

Sulphur Ointment.

℞. Adipis, ℔j.
Sulphuris sublimati, ℥viij.
Fiat unguentum.—Used in friction, three to six drams at a time.

Mercurial Cerate.

℞. Unguenti Hydrargyri, ℥iv.
Cerati Simplicis, ℥x.
Fiat ceratum.—A dressing for venereal ulcers. RATIER.

Ointment of Belladonna.

℞. Extracti Belladonnæ, ʒij.
Aquæ destillatæ, fʒij.
Adipis, ℥ij.
Misce.—Employed by M. Chaussier as a direct application to the neck of the uterus, in cases of rigidity. RATIER.

Ointment of Alum, Calomel, &c.

℞. Hydrargyri Chloridi Mitis, ʒij.
Aluminis exsiccati,
Plumbi Oxidi Semivitrei, āā ʒss.
Olei Terebinthinæ, fʒij.
Unguenti Simplicis, ℥iss.
Fiat unguentum.

This ointment is particularly adapted to *tinea capitis*. It should be applied every night going to bed, and washed off in the morning: as soon as the child's head is dry, dust it over with powdered starch, which, in the evening, is again to give place to the ointment. The hair must be cut off previous to the application of the ointment.

Ointment of Galls.

℞. Pulveris Gallæ, ʒj. vel ʒij.
Adipis, ℥j.
Fiat unguentum.—In hemorrhoidal affections.

Ointment of Oxide of Zinc.

℞. Zinci Oxidi, ʒj.
Butyri recentis, ʒvj.
Fiat unguentum.—To be applied to the eyes in defluxions arising from relaxation or slight inflammation of the lids.

Kentish's Ointment.

℞. Cerati Resinæ, ℥ij.
Olei Terebinthinæ, fʒij. vel f℥ss.
Fiat unguentum.

This preparation has long been celebrated in burns and scalds. Care is requisite to avoid touching the sound skin, for turpentine occasionally inflames it severely.

Ointment of Bromide of Potassium.

℞. Potassii Bromidi, gr. xxxiv. ad ʒj.
Adipis, ℥j.
Fiat unguentum.

Ointment with Goulard's Cerate, Calomel, &c.

℞. Cerati Plumbi Subacetatis,
——— Simplicis, āā ℥ss.
Hydrargyri Chloridi Mitis,
Pulveris Opii, āā ʒj.
Misce.—Useful in various cutaneous eruptions.

Jos. Parrish.

Ointment of Rhubarb, Opium, &c.

℞. Pulveris Rhei, gr. x.
——— Opii, gr. v.
Unguenti Simplicis, ℥jss.
Fiat unguentum.—In indolent ulcers.

Ointment of Tar, &c.

℞. Unguenti Picis Liquidæ, ℥j.
——— Hydrargyri Nitratis, ℥ss.
Fiat unguentum.—In tinea capitis.

Ointment of Tar and Opium.

℞. Pulveris Opii, ʒij.
Unguenti Picis Liquidæ, ℥j.
Fiat unguentum.
For hemorrhoids.

Kirkland's Neutral Cerate.

℞. Emplastri Plumbi, ℥iv.
Olei Olivæ,
Cretæ Præparatæ,
Acidi Acetici, āā ℥ij.
Plumbi Acetatis, ʒjss.

The plaster and oil are first to be melted over a gentle fire. The prepared chalk is then to be briskly stirred in, and when the mixture is sufficiently cooled, the vinegar and superacetate of lead are to be added, and the whole stirred until nearly cold.

This cerate, which is not to be met with in the pharmacopœia, is well adapted to abraded irritable surfaces, and the later stages of burns.

Aromatic Sulphur Ointment.

℞. Potassæ Carbonatis, ℥ss.
Aquæ Rosæ, f℥j.
Hydrargyri Sulphureti Rubri, ℥j.
Olei Bergamii, f℥ss.
Sulphuris sublimati et loti,
Adipis, āā ℥x.

Misce secundum artem.—In scabies. BATEMAN'S *Synopsis.*

Ointment with Carbonate of Ammonia, &c.

℞. Ammoniæ Carbonatis, ʒss.
Unguenti Simplicis, ℥ss.

Fiat unguentum.—Applied to indolent ulcers of a scrofulous character.

Ointment with Verdigris, &c.

℞. Cupri Subacetatis,
Cupri Sulphatis,
Hydrargyri Oxidi Rubri, } āā ʒij.
———— Chloridi Corrosivi, ʒj.
Adipis, q. s.

Ut fiat unguentum.

This may be spread on lint, and one or two applications will be sufficient to destroy a very large mass of fungous granulations. B. C. BRODIE.

Ointment of Ipecacuanha.

℞. Pulveris Ipecacuanhæ, ʒij.
Olei Olivæ, fʒij.
Adipis, ℥ss.
Misce, et fiat unguentum.

Useful as a counter-irritant. TURNBULL.

Ointment of Calomel and Tar.

℞. Hydrargyri Chloridi Mitis, ʒj.
Unguenti Cetacei, *Lond.* ʒj.
——— Picis Liquidæ, ℥ss.
Fiat unguentum.—Used in lepra. A. T. THOMSON.

Ointment of Creasote and Charcoal.

℞. Creasoti, fʒss.
Alcoholis, fʒjss.
Carbonis Animalis purificati, ʒj.
Unguenti Cetacei, *Lond.* ℥jss.
Fiat unguentum.

Used in cases of burns and scalds. "For children under five years, the ointment should be weakened by mixing it with four times its bulk of spermaceti; for children from five to ten years, with twice its bulk of spermaceti; and so on, gradually increasing the strength of the ointment according to the age of the patient." S. SUTRO.

Oxide of Silver Ointment.

℞. Argenti Oxidi, ʒj.
Unguenti Simplicis, ℥j.
Fiat unguentum.

Used for sore nipples.

Ointment of Slaked Lime, Zinc, &c.

℞. Calcis, ʒj
Camphoræ, ℈j.
Unguenti Zinci Oxidi, ℥j.
Fiat unguentum.

This is the "topique contre acne" of the
HÔPITAL ST. LOUIS.

Citrine Ointment.

℞. Unguenti Hydrargyri Nitratis, ℥j.

When well prepared, this is one of our most efficient ointments in a great variety of cutaneous diseases.

Depilatory Ointment.

℞. Sodæ Carbonatis, ʒij.
Calcis, ʒj.
Adipis, ℥j.
Fiat unguentum.

Used in porrigo. BIETT.

Veratria Ointment.

℞. Veratriæ, gr. x.
Acidi Acetici, gtt. x.
Adipis, ℥j.
Fiat unguentum.

Veratria has been used externally in neuralgia, and with the most marked success.

Ointment of Nitrate of Silver.

℞. Argenti Nitratis, ʒss.
Adipis loti, ℥ss.
Fiat unguentum.

Used to smear over bougies in the treatment of gonorrhœa.
MACDONALD.

Ointment of Tannin.

℞. Acidi Tannici, ʒj.
Adipis loti, ℥ss.
Fiat unguentum.

Used for the same purposes as the astringents generally.
FRONMÜLLER.

POWDERS.

Sometimes the practitioner prefers dusting medicinal agents directly upon diseased surfaces, instead of incorporating them with lard in the form of an ointment. Hundreds of such formulæ might be given, but we limit our selection to two or three.

Powder of Verdigris and Calomel.

℞. Cupri Subacetatis,
Hydrargyri Chloridi Mitis, āā ℈j.
Fiat pulvis subtilissimus.—For chancres and indolent ulcers.

Powdered Rhubarb, &c.

℞. Pulveris Rhei,
——— Ipecacuanhæ, āā ʒj.
Fiat pulvis.—To be dusted on sarcomatous and watery tumors.

Rhubarb alone forms an excellent application to indolent ulcers.

Powder of Savin, &c.

℞. Pulveris Sabinæ,
——— Cupri Subacetatis, āā ʒj.
Fiat pulvis.—To be dusted on sores accompanied with fungous excrescences.

F.—CATAPLASMS.

Cataplasm of Bread and Milk.

Remove the crust from a part of a loaf of stale bread, and crumble the bread into a bowl. Pour over it sufficient sweet milk to cover it, and simmer over a fire, occasionally stirring, until the bread is reduced to a pulpy consistence. The poultice is to be applied as warm as the patient can bear it.

Water may be substituted for the milk without much if any disadvantage.

Cataplasm of Flaxseed Meal and Bran.

Take equal parts of ground flaxseed and bran. Pour boiling water upon them, and stir constantly until the poultice has a pulpy consistence.

In the Northern and Middle States, it is customary to use the common flaxseed meal, which contains both the oily and mucilaginous principles; but in New York city and some other places, the ground oil-cake is preferred. Equal parts of the latter and bran form an elegant poultice.

Mush Cataplasm.

This is made by stirring Indian meal, in small quantities, into water kept boiling in a pan, until the whole has acquired the proper degree of consistence.

Cataplasm of Yeast.

℞. Farinæ, *Ed.* ℔j.
Cerevisiæ Fermenti, *Lond.* Oss.
Misce.—This cataplasm is useful in stimulating foul ulcers and gangrenous wounds, and removing the unpleasant odor. It should be made with fresh yeast, and applied warm.

Cataplasm of Charcoal.

This cataplasm is made by stirring into the common bread and milk poultice as much finely powdered charcoal as it will bear. It is a very useful application to offensive ulcers; removing in a short time the fetor, and giving them a more healthy aspect.

Cataplasms of Slippery Elm.

This poultice is made from the inner bark of the slippery elm ground into a fine powder, and moistened with hot water.

Cataplasms are also made of carrots or turnips, by simply boiling them to softness, and beating them to a pulpy mass. Either furnishes a good poultice for cancerous and other painful sores.

Emollient Cataplasm.

℞. Farinæ Seminum Lini,
———————— Hordei, āā partes æquales.
Aquæ, vel Lactis, q. s. ut fiat cataplasma.
The milk or water may be warmed if desirable. Applied to inflammatory tumors.

Antiseptic Cataplasm.

℞. Cataplasmatis Emollientis, ℥viij.
Pulveris Kino,
———— Camphoræ, āā ℥ij.
Fiat cataplasma.—Applied to unhealthy wounds and ulcers.
HÔTEL DIEU.

Resolvent Cataplasm.

℞. Cataplasmatis Emollientis, ℥iv.
Plumbi Acetatis, ℥j.
Ammoniæ Muriatis, ℥ss.
Fiat cataplasma.—Applicable to tumors that require gentle excitement. RATIER'S *Formulary.*

Cataplasm of Common Salt, &c.

℞. Pulveris Lini,
Micæ Panis, āā partes æquales.
Liquoris Sodii Chloridi saturati, q. s. ut fiat cataplasma.

To be applied to indolent strumous swellings, and enlargements of the joints. When it produces irritation or inflammation, the common bread and milk poultice must be substituted; and the other reapplied when circumstances permit.

Iodine Cataplasm.

℞. Tincturæ Iodinii, f℥ss.
Pulveris Lini, ℥j.
Avenæ Farinæ, ℥iij.
Aquæ q. s. ut fiat cataplasma.

Applied to indolent ulcers (especially those of a scrofulous character), and to tumors of the same class.

G.—BATHS.

The ordinary application of cold, tepid, and shower baths, is too well known to require any particular notice. The hot bath should be of a temperature of 93 to 96 degrees of Fahrenheit. It is designed to alleviate general or local irritation, and to induce repose and sleep. It is especially adapted to fevers with deficient capillary circulation, rheumatism, herpetic eruptions, paralytic affections, &c. The lower temperature is best adapted to cutaneous complaints, and to bring on relaxation of the skin during febrile irritation; the warmer temperature is suited to paralysis; and, as a general rule, more heat is desirable to act upon deep-seated than on superficial diseases.

Vapor Baths are produced by the evaporation of boiling water in a suitable apparatus. They are used, like ordinary warm baths, in rheumatic and cutaneous affections, and in every case wherein profuse perspiration is desirable. They are avoided in persons laboring under pulmonary or cardiac disease, and in exhaustion from any cause.

Local Baths are admirably adapted to parts which are swelled and painful, and may consist of tepid water only, or their strength may be increased by the addition of saline, emollient, narcotic, or stimulant substances. Among these salt and mustard are preferable.

Sulphurous Water, or Artificial Bareges Bath.

℞. Potassii Sulphureti, ℔j.
Aquæ, cong. xxx.
Mix for a bath. In cutaneous eruptions.

Sulphureo-gelatinous Bath.

℞. Potassii Sulphureti, ʒij. vel ʒiv.
Aquæ, cong. xxx.
Add to this solution,
Ichthyocollæ, ℔j. vel ℔ij. in Aquæ bullientis solutæ ℔x.
This bath, according to Dr. Green (*Diseases of the Skin*, p. 240), "is preferable to the artificial Bareges bath, as it is neither irritating nor apt to occasion feverishness, which the common sulphureous water-bath is. A cheaper and not less efficacious gelatine may be procured by dissolving from a pound and a half to two pounds of parchment-clippings in water by long boiling, or by using a neat's or a calf's foot for the purpose."

Emollient Bath.

To an ordinary tepid water-bath, add a large cupful of thick gruel or paste, and mix it well with the water. These baths are suited to prurigo, eczema, lichen, and impetigo.

Nitro-muriatic Acid Bath.

℞. Acidi Nitrici, fʒiij.
—— Muriatici, fʒj.
Mix, and add to the water of a tepid bath, which should then be about as sour as distilled vinegar.

Corrosive Sublimate Bath.

℞. Hydrargyri Chloridi Corrosivi, ʒij.
Aquæ tepidæ, cong. xxx.
Mix for a bath. Prescribed by the French physicians in syphilitic affections, when it is desirable to avoid the action of the medicine on the stomach. This plan is seldom resorted to, on account of the great risk of employing corrosive sublimate in such large quantity.

Alkaline Bath.

℞. Potassæ Carbonatis, ʒiv. vel ʒviij.
Aquæ tepidæ, cong. xxx.
Mix for a bath. For promoting desquamation from the skin, and to allay itching in various forms of prurigo.

Ioduretted Baths.

	No. 1.	No. 2.	No. 3.
℞. Iodinii,	ʒij.	ʒiij.	ʒiv.
Potassii Iodidi,	ʒiv.	ʒv.	ʒviij.
Aquæ destillatæ,	f ʒvj.	f ʒvj.	f ʒvj.

Fiant solutiones.

One of these solutions, according to the strength required, is added to a tepid bath in a wooden tub. For children, the drams may be changed for scruples. Used in scrofula.

Artificial Harrowgate Bath.

℞. Sodii Chloridi, ℔ij.
Magnesiæ Sulphatis, ʒiij.
Potassii Sulphureti, ℔j.
Aquæ, cong. xxx.
Mix for a bath.

H.—FOMENTATIONS.

Fomentation is a yet more restricted mode of applying fluids to the surface of the body, and is best accomplished by means of a sponge, flannel, or soft cloth. To be efficacious it should be often repeated, and not allowed to get cold.

Stimulant Fomentation.

℞. Vini Rubri, Oij.
Mellis, ʒiv.
Misce.—This is an active fomentation, adapted to parts in a low state of vitality. RATIER.

Saponaceous Fomentation.

℞. Alcoholis, Oij.
Saponis, ʒj.
Misce.—A resolvent in indolent tumors and in sprains. RATIER.

Narcotic Fomentation.

℞. Opii, ʒij.
Aquæ, Oj.
Solve.—For painful affections of the joints, as chronic rheumatism, &c. RATIER.

Narcotic Fomentation.

℞. Dulcamaræ, ℥ij.
Capsularum Papaveris, ℥ij.
Aquæ ferventis, Oj.
Fiat infusum.—Employed as a soothing application to irritable surfaces.

Mustard Fomentation.

℞. Farinæ Sinapis, ℥iv.
Aquæ ferventis, Oj.
Misce.—By wetting cloths in this fluid and applying them to the skin, irritation may be prolonged to any requisite degree.

Tobacco Fomentation.

℞. Tabaci, ℥ij.
Aquæ ferventis, Oj.
Misce.—Employed in psora, but is apt to produce nausea and vomiting. Its use requires great care.

I.—FUMIGATIONS.

Fumigations are for the most part used to purify infected air by absorbing or otherwise counteracting deleterious gases. They are also employed in diseases of the skin, and may be sometimes substituted for a local bath. The ordinary process for fumigating apartments with chlorine, has been already described. (Page 109.)

Fumigations of sulphur, cinnabar, and mercury, are also in common use for medicinal purposes, and are readily applied with a proper apparatus.

Fumigating Powders.

℞. Sulphuris, ℥iij.
Hydrargyri Sulphureti Rubri, ℈ij.
Iodinii, gr. x.
Fiant pulveres vj.

One of the powders to be used in the following manner: "If the disease is seated on the limbs, a tin case, or even a common jar, should be procured. A heated iron is to be placed at the bottom of this apparatus, with a grating above it to protect the foot or hand. One of the powders being placed on this heated iron, the limb is to be instantly put into the bath, the top of which should be covered over, to prevent the vapor from escaping. The limb may be continued in the bath for from fifteen to twenty minutes, according to circumstances." Used in lepra. T. H. Burgess.

BOOK III.

OF

DIETETIC PREPARATIONS, AND POISONS.

DIETETIC PREPARATIONS.

The importance of an acquaintance with those preparations of diet peculiarly designed for the patient during disease and convalescence, is so obvious that it requires little or no comment. It was remarked by the late Dr. Rush in his lectures, that a physician should spend six months in a kitchen before entering upon his practical career. As the medical attendant, therefore, is called upon frequently to give directions and rules for preparing the diet for the sick, we have inserted a few formulæ for those articles which are in daily use. However apparently trifling such a class may appear to some persons, the physician will find that an attention to it will place the patient more completely under his own control, and inspire greater confidence in the relations and attendants. The rules to be observed in giving nourishment to the sick, will generally present themselves; but there is one in particular which should not be overlooked. In all low diseases, the nurse should be directed never to give too much at once, but frequently to repeat a small proportion. The lapse of a very short time without food, will frequently, in cases of great prostration, reduce the patient very low, and may endanger his life.

The rule is not intended to be applied to those chronic derangements of the digestive functions, which are to be remedied principally by a regulation of diet, and in which the old adage, "a little and often," has too frequently, we are convinced, been perniciously advised.

Decoction of Barley; or, Barley Water.

Take of

Pearl Barley, ... 2 ounces,
Boiling Water . . . . . 2 quarts.

Before adding the boiling water, let the barley be well washed. Then boil it to one-half, and strain the liquor. A little lemon-juice and sugar may be added if desirable. To be taken *ad libitum* in inflammatory diseases.

Rice Water.

Take of

Rice, ... 2 ounces,

Let it be well washed, and add to it—

Water, ... 2 quarts.

Boil it for an hour and a half, and then add sugar and nutmeg as much as may be required. To be taken *ad libitum*.

Rice, when boiled for a considerable time, assumes a gelatinous form, and, mixed with milk, is a very excellent diet for children. It possesses in some measure a constipating property, which may be increased by boiling the milk.

Infusion of Flaxseed.

As under Expectorants. (Page 104.)

Mucilage of Gum Arabic.

As an article of diet, the proper proportions are an ounce of Gum Arabic to a pint of boiling water. The solution is allowed to cool before it is used. Gum Arabic is very nutritive, and life can be sustained on it alone for some time.

Decoction of Bran.

Take of

Fresh Wheat Bran, ... 1 pint,

Water, ... 3 quarts.

Boil down one-third, strain off the liquor, and add sugar, honey, or molasses, according to the taste of the patient.

Bran tea may be made by using boiling water, and suffering the mixture to stand in a covered vessel for three or four hours.

Sage Tea.

Take of

The dried Leaves of Sage, ... half an ounce,

Boiling Water, ... 1 quart.

Infuse for half an hour, and then strain. Sugar and lemon-juice may be added in the proportion required by the patient. In the same manner may be made balm and other teas.

These infusions form very agreeable and useful drinks in fever, and their diaphoretic powers may be increased by the addition of sweet spirits of nitre or antimonial wine.

Infusion of Malt.

Take of

Ground Malt, ... 1 pint,

Scalding Water, ... 3 pints.

Infuse for two hours, and strain off the liquor, to which may be added sugar or lemon-juice, if required.

This was a favorite preparation with the late Dr. Jos. Parrish, in inflammatory fevers.

Lemonade.

Take of

Fresh Lemon Juice,	4 ounces,
Fresh and very thin Peel of Lemon,	half an ounce,
White Sugar,	4 ounces,
Boiling Water,	3 pints.

Let them stand until cold, then strain off for use. When employed in fevers, a little nitrate of potash or sweet spirits of nitre may be added. It can be farther diluted to the taste of the patient.

This preparation, when freely taken, sometimes produces pain in the bowels. It must therefore be used with some reserve as a daily drink.

Water Gruel.

Take of

Oatmeal,	2 ounces,
Water,	1 quart.

Boil for ten or fifteen minutes and strain, adding sugar and salt to make it agreeable.

Milk for Infants.

Take of

Cow's Milk,	1 part,
Water,	2 parts.

Loaf Sugar as much as may be agreeable.

It is necessary, when children are to be raised by the hand, to dilute the milk. These proportions may be altered as the child advances in age. The object is to make a diet as near the qualities of the maternal milk as possible.

Rice Gruel.

Take of

Ground Rice,	1 ounce,
Cinnamon,	1 dram,
Water,	1 quart.

Boil for forty minutes, adding the aromatic near the conclusion. Strain and sweeten. Wine may be added if necessary.

Panado.

Take of

Wheat Bread,	1 ounce,
Cinnamon,	1 dram,
Water,	1 pint.

Boil them until well mixed, then add a little grated nutmeg and sugar. Wine or butter may also be added if desirable.

Compound Salep Powders.

℞. Salep,
Tragacanth,
Sago, of each ℥iv.
Cochineal, ℥ss.
Prepared Oyster-shells, ℥j.

To be carefully mixed and divided into powders of ℥j. each. Stir one of these powders into a pint of milk, and boil them together for ten or fifteen minutes. To be drank freely in dysentery and diarrhœa.

These are the dysenteric powders of Dr. Castanello. A somewhat analogous preparation which bears the same name, is prepared as follows:—

℞. Gum Arabic,
Tragacanth,
Arrowroot,
Sago,
Tapioca, of each ℥ij.

Mix them well together, and boil in a pint of milk, flavored with nutmeg or cinnamon. Used as a diet in dysentery, diarrhœa, &c. &c.

Sago.

Take of

Sago,	2 tablespoonfuls,
Water,	1 pint.

Boil gently until it thickens, frequently stirring. Wine, sugar, and nutmeg may be added according to circumstances.

Tapioca Jelly.

Take of

Tapioca,	2 tablespoonfuls,
Water,	1 pint.

Boil it gently for an hour, or until it assumes a jelly-like appearance. Add sugar, wine, and nutmeg, with lemon-juice, to suit the taste of the patient and the nature of the case.

Jelly of Carrageen, or Irish Moss.

Take of

Carrageen,	half an ounce,
Fresh Milk,	a pint and a half.

Boil them down to a pint; remove any sediment by filtering or otherwise, and then add the requisite quantity of sugar, with lemon-juice, or peach water, to give it an agreeable flavor. To be used freely.

The moss, before being used, should be well washed in cold water to remove its saline taste.

Arrowroot.

Take of

Arrowroot,	1 tablespoonful,
Sweet Milk,	half a pint,
Boiling Water,	half a pint.

Boil them a few moments over the fire.

Sweetened with loaf sugar, it is one of the best aliments for children, especially when the bowels are irritable.

The farinaceous substance called *Canna* is prepared by simply boiling in milk, and adding sugar.

[Arrowroot is better prepared in the following manner:—

Take of

Arrowroot,	1 large tablespoonful,
Cold Water,	sufficient,
Boiling Water,	half a pint.

Mix the arrowroot with just sufficient cold water to soften the lumps, then pour on the boiling water, and stir continually until the solution is gelatinous and transparent. Sweeten to the taste. EDITOR.]

Boiled Flour.

Take of

Fine Flour,	a pound.

Tie it up in a linen cloth as tight as possible, and after frequently dipping it in cold water, dredge the outside with flour till a crust is formed round it, which will prevent the water soaking into it while boiling. It is then boiled until it becomes a hard, dry mass.

Two or three spoonfuls of this may be grated and prepared in the same manner as arrowroot, for which it forms an excellent substitute.

Vegetable Soup.

Take one turnip, one potato, one onion. Let them be sliced, and boiled in one quart of water for an hour. Add as much salt as is agreeable, and pour the whole upon a piece of dry toast.

This preparation forms an agreeable substitute for animal food, and may be given when the latter is inadmissible.

Chocolate.

Chocolate should be suffered to stand until cold, after having been made in the usual way. The oily parts thus collect on the surface and should be taken off. The liquid should then be boiled again, and sugar, &c. added.

Beef Tea.

Take of

Lean Beef, cut into shreds, ... 1 pound,
Water, ... 1 quart.

Boil it for twenty minutes, taking off the scum as it rises. After it grows cold, strain the liquor.

This preparation is more nourishing than ordinary broths, and very palatable.

Another Plan for Beef Tea.

"One pound of lean beef, free of fat, and separated from the bones in the finely chopped state in which it is used for mince meat, is uniformly mixed with its own weight of cold water slowly heated to boiling, and the liquid, after boiling briskly for a minute or two, is strained through a towel, from the coagulated albumen and fibrine, now become hard and horny. Thus we obtain an equal weight of the most aromatic soup, of such strength as cannot be obtained even by boiling for hours from a piece of flesh." This is to be seasoned to taste.

DR. BENEKE.

Essence of Beef.

Take of

Lean Beef, sliced, ... 1 pound.

Put a sufficient quantity into a porter bottle to fill up its body, cork it *loosely* and place it in a pot of cold water, attaching the neck by means of a string to the handle of the vessel. Boil this for an hour and a half or two hours, then decant the liquor and skim it.

To this preparation may be added spices, salt, wine, brandy, &c., according to the taste of the patient and nature of the disease.

Hartshorn Jelly.

Take of

Hartshorn Shavings,	4 ounces,
Water,	1 quart.

Boil over a gentle fire until one pint of the water be dissipated. Strain, and add lemon-juice, sugar, and wine.

This forms, either with or without the last-named ingredients, a very nourishing diet for convalescents; and, when mixed with an equal portion of milk, is well adapted to the bowel complaints of children.

Isinglass or fish glue may be used instead of the hartshorn shavings, if preferred.

Calf's Feet Jelly.

Take two calves' feet and add to them one gallon of water, which reduce by boiling to one quart. Strain it, and when cold, skim the fat entirely off. Add to this the white of six or eight eggs well beaten, a pint of wine, half a pound of loaf sugar and the juice of four lemons, and let them be well mixed. Boil the whole for a few minutes, stirring constantly, and then pass it through a flannel strainer.

This forms a very nutritious article of diet for the sick and convalescent. The wine may be omitted or added at option.

Chicken Water.

Take half a chicken divested of all fat, and break the bones; add to this half a gallon of water, and boil for half an hour. Season with salt.

This water is directed by some physicians in the early stages of cholera. Taken warm it promotes vomiting and washes out the stomach.

Suet Ptisan.

Take of

Sheep's Suet,	2 ounces,
Milk,	1 pint,
Starch,	half an ounce.

Boil slowly for half an hour.

This may be used as a common drink in dysentery.

Mucilage of Starch, &c.

Take of

Starch,	1 ounce,
Powdered Cinnamon,	1 dram,
——— Gum Arabic,	1 ounce,
Boiling Water,	3 pints.

Boil until reduced one-third, and strain.

The above may be taken for a common drink in dysentery.

Wine and Mustard Whey.

As under Stimulants. (Page 131.)

Rennet Whey.

Take of

New Milk,	1 quart,
Rennet,	a large spoonful.

Heat the milk and then add the rennet. Boil until the curd separates and is all taken off.

To many persons this forms a very agreeable nutriment.

Vinegar Whey.

Take of

Milk,	1 pint,
Vinegar,	half an ounce.

Boil for a few minutes, and separate the curd.

Tartar Whey.

Take of

Milk,	1 quart,
Cream of Tartar,	half an ounce.

Boil until the curd separates.

OF POISONS.

Cases of poisoning are so sudden and so awful that no time is to be lost in administering relief. To do this with judgment and effect, it is requisite to be familiar with all the usual antidotes; and of these, we have accordingly selected some which possess an acknowledged efficacy, omitting at the same time many others that are unworthy of confidence. For the purpose of convenience we have arranged the *Poisons* alphabetically, with the appropriate *antidotes* attached to each. But, as has been remarked when speaking of Emetics, our chief reliance in these cases is upon free vomiting, induced by those articles which are most speedy in their effect. Dr. Beck prefers sulphate of zinc, whenever it can be procured, and adds, "but if vomiting be present, we may aid it by diluents or a vegetable emetic. Tartrate of antimony should never be given." Yet, even from this treatment, little can be expected when the deleterious substance has remained long in the stomach; and the stomach-tube and syringe will be indispensable.

To protect the stomach and intestines from the direct operation of poisons, it is generally recommended to give milk, lime-water, soap, or drinks sweetened with sugar or honey. Oils and other fatty substances are found to be injurious.

When the vomiting has ceased, and retching and pain continue, Mr. Hume advises the free administration of carbonate of magnesia with tincture of opium, suspended in water.

ALCOHOL.

Large quantities of alcoholic liquors, taken by persons unaccustomed to their use, often produce fatal effects.

The treatment in such cases is to evacuate the stomach as soon as possible; but from the rapidity of absorption this may not always be effectual. The patient must be kept roused and

cold affusion plentifully used. Large draughts of tea or coffee ought to be taken until the stomach is thoroughly evacuated.

ALKALIES.

Ammonia, *potash*, *soda*, and their carbonates, are seldom taken in poisonous quantities; when it so happens, the best antidote is common vinegar; it is always at hand, and its affinity for these substances is sufficiently strong to neutralize them. Also, a *fixed oil*, as olive oil, should be given in large quantity—several pounds being required where a large portion of the alkali has been taken; it acts by rendering the vomiting easy and free, and partly by converting the alkali into a soap.

ANTIMONY.

The preparation of this mineral by which poisoning is commonly produced is *tartar emetic*. This of itself produces violent vomiting, and therefore our first efforts should be directed to keeping up the emesis by means of mild diluents and mucilaginous preparations. Its antidotes are the alkalies, tannin, bitter and astringent infusions, such as common tea, Peruvian bark, especially the yellow bark and its decoction—the administration of galls in *powder*, &c. &c. These decompose the antimonial salt. When the vomiting is excessive, opium by injection will assist in allaying it.

ARSENIC.

Until lately, there has been no known antidote to this deadly poison, and our sole dependence has been upon mild diluents, albumen (such as the whites of eggs suspended in milk) or warm water and sugar. Various substances have been proposed as antidotes, but without success. It is best first (if vomiting has been delayed) to give an emetic of the sulphate of zinc, and milk should be drunk liberally both before and after vomiting has begun. The patient should never be allowed to exhaust his strength in retching, without some milk or other fluid in his stomach to act on.

The HYDRATED PEROXIDE OF IRON, freshly prepared, was announced in the year 1834, by Dr. Bunsen, of Göttingen, as an antidote for poisoning by arsenic; and its efficacy has been confirmed by MM. Orfila, Lesueur, Soubeiran, and Miguel, and also in this city by various chemists, and by experiments upon the inferior animals. The antidote is now officinal, and should always be kept on hand.

The following direction will enable the most ignorant person to make use of this antidote until medical advice can be obtained. It must be administered as soon as possible after the discovery that arsenic has been taken, and as it causes no bad effect itself, should be given EVERY FIVE OR TEN MINUTES, UNTIL ENTIRE RELIEF IS OBTAINED. It is said that twelve parts of it are necessary to neutralize one of arsenic. The dose for a grown person is a tablespoonful; for children a teaspoonful. The bottle to BE WELL SHAKEN BEFORE EACH DOSE. IN CASES OF EMERGENCY, IT MAY BE PREPARED BY SIMPLY PRECIPITATING THE MURIATED TINCTURE OF IRON by ammonia, and washing the precipitate.

Should the patient survive (and the probability is in his favor if the antidote be faithfully given), the inflammatory symptoms must be combated on the general principles for treating inflammation. The diet should consist exclusively of milk, gruel, cream, rice, and similar bland articles.

In a case of poisoning in this city, where half an ounce of the powdered arsenic had been taken and was followed by extreme thirst and vomiting, all the symptoms were allayed by freely taking the hydrated peroxide of iron. Only a slight gastritis followed, which was readily subdued. The oxide forms with the arsenious acid a proto-arseniate of iron.

In place of the hydrated oxide, the rust of iron and precipitated carbonate should be resorted to in cases of emergency, possessing as they do, to a certain extent, the power of antidotes. Magnesia in large doses acts also as an antidote, and in several cases lately reported was used with complete success.

When the poison has been taken in the form of Fowler's solution, Dr. Dunglison recommends copious draughts of lime-water to be used.

BARYTA.

The carbonate and muriate of this earth are poisonous, and the latter has been taken by mistake for Glauber's salts. In cases of poisoning with the carbonate, the alkaline sulphates should be given with a mixture of vinegar, and resort had to the stomach pump and emetics. The true antidote is sulphate of magnesia or soda; with these a sulphate of baryta is formed, which is perfectly insoluble, and may be brought off by emetics and copious diluents, oleaginous or albuminous.

COPPER.

The sulphate (blue vitriol), and subacetate (verdigris), are the salts of this metal from which poisoning most frequently re-

sults; the latter often from the careless use of culinary vessels or mineral water fountains. Producing violent emesis, this should be encouraged, by the free use of tepid water, milk, and mucilages.

According to Orfila, albumen in the form of white of eggs is the best antidote, and sugar, formerly in much repute, acts only as an emollient. In the absence of eggs, milk or wheaten flour should be employed. Vinegar in all cases must be avoided. The French physicians have tried iron-filings, in consequence of the power possessed by this metal of reducing the salts of copper; and the results they obtained, in some experiments performed on animals, are such as to justify considerable confidence in the antidote.

GOLD.

The nitro-muriate of gold is a powerful poison. Its antidotes are sulphate of iron (which throws down the gold in a metallic state), the free use of mucilaginous drinks, and albuminous substances.

IODINE AND IODIDE OF POTASSIUM.

Ten or twenty grains of Iodine sometimes, though not always, produce constriction of the fauces, nausea, vomiting, and severe colic pain. The supposed antidote for these preparations is starch freely given, or, what answers the same purpose, flour mixed with water. Magnesia is also recommended.

LAUDANUM.

Laudanum, when taken in large quantity, must be withdrawn from the stomach by active emetics, or by tickling the fauces. The stomach-tube should then be used to remove whatever remains of the poison. The free use of vegetable astringents and strong coffee will then be serviceable. An important part of the after treatment is the maintenance of artificial respiration, besides which active stimulants are often required. Iodine, bromine, and chlorine are stated by M. Donné, of Paris, to be antidotes for poisoning by nux vomica and opium. M. Orfila thinks that the decoction of galls may with propriety be used as an imperfect antidote, until the narcotic can be evacuated from the stomach.

LEAD.

The acetate is the only preparation which is resorted to as a poison. The sulphate of magnesia or soda is its true antidote, as it converts the poison into a sulphate, which is inert; also the alkaline carbonates and particularly the bicarbonates. Phosphate of soda is also a good antidote. If the patient does not vomit, give an emetic of the sulphate of zinc, which will not only empty the stomach, but convert any remaining soluble lead into an insoluble sulphate.

Milk or albumen should also be given in large quantities, as it has been found that the albuminous principle of milk is a very effectual precipitant of the oxide of lead; a compound which, though not entirely inert, is far less active than the acetate, and tends to prevent the action of the poison as a corrosive on the stomach.

MERCURY.

All the preparations of this metal are poisonous, and corrosive sublimate in particular. Our chief and only dependence, according to M. Orfila, is upon the albumen of eggs, copiously swallowed, or introduced through the *stomach tube*, which should be resorted to when the patient cannot swallow or vomit. Enemata of the same should also be used.

If the albumen be taken in sufficient quantities, it decomposes the sublimate, forming a triple compound of albumen, muriatic acid, and calomel. If the remedy excites fresh vomiting, so much the better, and if symptoms of gastritis appear, they are to be treated in the usual way. M. Orfila has also established that a fatal dose of corrosive sublimate may be swallowed by animals with impunity, provided the white of egg, or any other kind of fluid albumen, be introduced shortly before or after into the stomach. Cases are also upon record which establish that it possesses an equal efficacy in man.

The gluten of wheat flour is also strongly recommended on the same principle as an antidote to corrosive sublimate. To administer it, nothing more is requisite than to mix the flour with water. The quantity taken must be very considerable. It is said to reduce the muriate to the state of calomel.

Gluten of wheat flour is also given in the form of an emulsion with soft soap, by mixing partly in a mortar and partly with the hand, 5 or 6 parts of fresh gluten with 50 parts of soft soap.

When neither albumen nor gluten is at hand, milk forms a good substitute.

The only other antidotes deserving of mention here are iron filings, meconic acid, and the hydrated proto-sulphuret of iron. The former was recommended by Dumas, and must obviously operate by bringing the mercury to the metallic state. The meconic acid, particularly when combined with an alkaline base, affords, with corrosive sublimate, an insoluble and inert permeconate of mercury. The meconates of the ordinary alkalies, however, can scarcely be obtained in sufficient quantity to be applied to such a purpose; and from the smallness of the saturating power of meconic acid, it would be hazardous to administer the quantity of opium which would be adequate to the decomposition of a few grains of corrosive sublimate, inasmuch as the muriate of morphia, which would be contemporaneously formed, is a narcotic medicine of very considerable energy. [The hydrated proto-sulphuret of iron was proposed by Mialhe, and confirmed by Orfila, who says that, if it be taken *immediately* after the ingestion of the poison, it completely destroys the poisonous quality of corrosive sublimate.]

MINERAL ACIDS.

The first, because the most ready method of counteracting the action of the mineral acids, is the copious use of water, warm or cold, milk, oil, or mucilage, which, by simply diluting them, renders them less acrid, and at the same time assists the stomach in rejecting them. This course should be followed until the proper antidotes are prepared. These are the alkalies, alkaline earths and soaps; common pearlash or carbonate of potash; carbonate of magnesia; chalk; and soap in solution. Calcined magnesia, though advised by some authors, is objectionable, inasmuch as the rapidity with which it would combine with acid in the stomach, might alone produce inflammation of that organ.

The smallest quantity of nitric acid which is known to have destroyed life is two drams; the smallest fatal dose of muriatic acid, was one ounce.

NARCOTICS.

The remedies employed in all cases of poisoning from this class of substances, are nearly the same, viz. the most active emetics, as sulphate of zinc in large doses, alum and ipecacuanha. In all cases where it is possible, the stomach-tube should be employed. After these evacuations, strong decoctions of coffee or the vegetable astringents, with cold affusion, are proper. Electro-magnetism is also serviceable, together with powerful stimulants.

NITRE.

This salt is often taken in mistake for Epsom or Glauber's salts. When this happens, vomiting should be excited as speedily as possible, followed by the free use of mucilaginous drinks, hot gin-toddy, brandy and water, &c.

As there is no antidote to this poison, in case these means should fail we must resort to the stomach-pump.

OPIUM.

We cannot do better in this place than transcribe what Dr. T. R. Beck, of Albany, says of the antidotes to opium.

"The experiments of Orfila have demonstrated that the administration of vinegar, or rather vegetable acids, previous to the evacuation of the poison by vomiting, will accelerate and aggravate the action of the opium; but that when the opium has previously been expelled, water acidulated with vinegar, or any other vegetable acid, will tend to diminish and correct the effects. Coffee, when prepared in strong decoction or infusion, rapidly lessens the symptoms, but cannot be considered as an antidote. The result of his experiments led him to give the following directions for the treatment of a person poisoned by opium. Induce vomiting, if possible, with sulphate of zinc, or sulphate of copper; but the administration of watery liquors with the view of promoting the vomiting, should be forbidden, as they dissolve the opium and promote its absorption. In order to insure the action of the emetic, the patient must be kept *roused* by discharging cold water over the head and breast; yet cold affusion must be avoided in the advanced stage, when the body is cold, and the breathing scarcely perceptible. To insure success, in every case the patient must be kept awake, either by dragging him up and down between two men, or by flagellation on the back and soles of the feet. Artificial respiration may be used in desperate cases with propriety. Bleed the patient immediately after the rejection of the poison, and repeat this if necessary. Afterwards administer alternately water acidulated with any vegetable acid and a strong infusion of coffee warmed—and in ten or twelve hours exhibit an enema, and let the arms and legs of the patient be well rubbed. Purgative clysters should be continued, if it be suspected that any of the opium still remains in the large intestines."—Beck, *Med. Jurisprudence*, vol. ii. p. 403. These remarks are applicable to the poisonous effects induced by other articles of the Narcotic class, as belladonna, hyoscyamus, stramonium, &c. Yet as

these are not often taken with suicidal intentions, the quantity is seldom inordinately large. Emetics, if given soon after the poison has been swallowed, will at least remove a part of it; after which the practitioner must necessarily be governed in the treatment by the nature of the peculiar poison, the amount taken and the patient's constitution. Stimulants are occasionally necessary from the first; in other instances, depletion; but more frequently, each is in turn called for. S. G. M.

OXALIC ACID.

Death from this poison is generally sudden. Lime-water or a mixture of chalk and water is recommended by Dr. Thompson, for the purpose of converting the acid into oxalate of lime. The carbonate of magnesia, also, has been found by experiment to counteract the poison; but the other alkalies must be avoided, as they act with an energy little inferior to the acid itself.

It is advisable to avoid giving *warm water* with a view to accelerate vomiting; for dilution promotes the absorption of the poison.

PHOSPHORUS.

This substance acts so immediately and so powerfully in decomposing the animal tissues, that no available antidote has hitherto been suggested. A small portion is sufficient to destroy life. Nevertheless, large quantities of mild demulcent liquids should be exhibited to shield the alimentary canal, and magnesia to neutralize the phosphoric acid.

PRUSSIC ACID.

This deadly poison, in its purity, acts with such rapidity as to leave no time for the administration of antidotes. When taken in small quantities, much diluted, its action is less rapid, producing symptoms of excessive prostration, convulsions and coma. Cold affusion to the head has been found very effectual in such cases, and when applied before the convulsive stage has passed, has often succeeded. The head should be kept elevated, and the water poured from a height upon the occiput and spine. The inhalation of ammonia is the antidote most to be relied on, many experiments having proved its efficacy. It should not be used of too great strength, which would endanger inflammation of the air-passages and stomach; the strong aqua ammonia, diluted with twelve parts of water, is recommended by Orfila.

Chlorine also possesses strong claims as an antidote, and from

the results of his experiments, is believed by Orfila to be the best which has yet been proposed.

Ether and chloroform have been recommended, and no doubt will eventually prove of great value from the rapidity with which they act.

Cases of poisoning with the oil of bitter almonds, cherry laurel water, &c., containing Prussic acid, are not unfrequent, particularly among children, and after evacuating the stomach, require the same treatment as for Prussic acid.

SILVER.

The nitrate of this metal is sometimes taken by mistake; its antidote is common salt, *largely given*, with copious draughts of mucilaginous drinks to promote vomiting. The salt produces an insoluble chloride which has no power on the system.

BECK.

TIN.

When any of the salts of tin are taken, albumen of eggs, flour, or milk given freely, is the appropriate remedy. Milk forms a coagulum with the muriate of tin (*Dyer's spirit*), and renders it innoxious.

ZINC.

The sulphate of this metal is occasionally taken in an overdose. Warm water and emollient drinks are proper in such cases; but milk is particularly useful, from its power of decomposing the sulphate; also albumen, magnesia, &c.

The crystallized sulphate of zinc very closely resembles the sulphate of magnesia, and *has been mistaken* for it; a fact to be borne in mind by apothecaries and physicians.

The following works have been consulted in arranging the preceding remarks on Poisons: A Treatise on Poisons, by Robert Christison, M. D.—Turner's Chemistry.—Manuel de Médecine Légale, par A. Brierre de Boismont.—Orfila, Toxicologie Générale.—Beck and Taylor's Medical Jurisprudences.—Henry, Thompson, &c. &c.—Costill's Treatise on Poisons.[1]

[1] A Practical Treatise on Poisons, their Symptoms, Antidotes, and Mode of Treatment. Dr. Costill's work embraces clear and concise views of the subject of which it treats, and constitutes an excellent *manual* for all practical purposes.

APPENDIX NO. I.

ON THE ENDERMIC USE OF MEDICINES.

"THE science of medicine," says Dr. Gerhard,[1] "has recently received an important auxiliary to its resources, by the discovery that remedial substances when applied to the cutis, after the removal of the epidermis, produce their peculiar effects with nearly the same energy as if introduced into the alimentary canal. This mode of exhibition, which has received the name of the *endermic method*, or *endermic medication*, is always found much more efficacious than the ialatreptic method of Christien, or the administration of medicines by means of frictions on the cuticle."

The endermic method requires the previous separation of the cuticle, which is best effected by a blister about four inches square. The cuticle should then be punctured or removed in very small patches, so that the medicine may come in contact with the vesicated surface. Substances used in this way must be applied in two or three times the quantity requisite when given by the mouth. "The remains of the substance applied are much less than the original quantity, and sometimes no trace of it can be perceived; the whole appearing to be absorbed or mingled with the secretions."

We avail ourselves of Dr. Gerhard's valuable paper for the following facts in relation to those medicines which act most effectually in the endermic method.

Sulphate of Quinia.—A blister to be applied to the epigastrium during the apyrexia; and if the paroxysm returns before the quinia can be used, defer it until the next apyrexia. Apply four grains of powdered quinia (either alone, or with an equal quantity of starch), four times a day, for two successive days. A less irritating plan, however, is to dissolve sixteen grains of quinia in two ounces of water, with which the blis-

[1] North Amer. Med. and Surg. Journ. April, 1830.

tered surface is to be repeatedly wet during the day by means of a soft linen cloth. There is no occasion to *remove* the loose epidermis; it is all-sufficient to *puncture* it in several places to allow the solution to touch the denuded surface.

Morphia.—The acetate and sulphate act readily and effectually; the latter is preferable, because more soluble and less irritating. It may be applied in powder, in solution, or in the form of cerate. The dose varies from half a grain to two grains, and its effects are speedily perceptible.

Digitalis.—Dose, two grains three times a day.

Aloes.—This medicine acts on the bowels with nearly the same certainty as if taken internally. Dose, ten grains, to be repeated, if necessary, in a few hours.

Gamboge, owing to its solubility, purges freely in the endermic method. Dose, from five to eight grains.

Rhubarb, *jalap*, *elaterium* and *croton oil*, contrary to what might be expected, do not produce catharsis, although they excite severe local irritation.

Squills.—This medicine in powder, sprinkled on a blistered surface three times a day, in the quantity of four grains at each application, causes copious diuresis. Its power is increased by combination with *digitalis*, in the proportion of four grains of the former to one of the latter.

Emetics from the *vegetable* kingdom all produce their effect in the endermic method; and tobacco does so without any previous irritation of the skin. The same remark is applicable to mercury and iodine, which last is best applied in the form of ointment, made by rubbing a dram with an ounce of cerate.

Emetics derived from the mineral kingdom exert no specific action.

APPENDIX NO. II.

ON THE USE OF ETHER AND CHLOROFORM.

The employment of anæsthetic agents has now become so general, and their great value so fully attested by many eminent physicians and surgeons in all parts of the world, that we shall here give a brief account of their uses and mode of application.

Indeed, the discovery of a means by which to give complete insensibility to pain during the performance of tedious surgical and dental operations, as well as to mitigate the spontaneous sufferings attendant on many diseases, must be considered one of the most important in the annals of medicine. That pain is useful in indicating the seat and progress of disease, cannot be denied; yet, on the other hand, its severity may exhaust life; and to allay it is often the most difficult and necessary part the physician is called upon to perform. The inhalation of ethereal substances now gives the practitioner more or less control over these "ills that flesh is heir to," enabling him to alleviate some, and wholly to prevent others.

Notwithstanding the benefit to be derived from its judicious use, this mode of inhalation is also capable of producing much evil in the hands of the unskilful and ignorant; and it should, therefore, be employed by those only who are acquainted with its diversified operation.

Ether and chloroform produce essentially the same effects, but the latter is much the more powerful and rapid in its action, and has the disadvantage of being a preparation of unequal strength.

The progressive stages of etherization seem to be pretty much as stated by Mr. Sibson, viz:—

1. Cerebral excitement.
2. Cerebral derangement, staggering intoxication.

3. Cerebral sleep (sopor); pupils contracted; dreams; reflex functions of the brain and spinal marrow still active.

4. Cerebral death (coma); reflex functions of the medulla and spinal marrow still active.

5. Death of spinal marrow; cessation of respiration (heart's action generally still present).

6. Cessation of heart's action.

He also says: "It is very important to be able to tell easily when the stage of safety—sopor, is about to merge into that of danger—coma. The action of the pupils is the key to this knowledge. Inhalation should not be continued one instant after the pupils, previously contracted, have begun to dilate.

"If unconsciousness can be secured by sopor, the inhalation should not be carried on to produce coma. If complete muscular relaxation be sought for, as in hernia, to facilitate taxis; in dislocation, to make reduction easy; and in tetanus, then it will be needful, in general, to urge the patient from sopor into coma; but as soon as the muscular relaxation is secured, the inhalation should cease. When chloroform or ether is employed in chorea, delirium tremens, or other affections, it should never be urged beyond sopor. In neuralgia, it is not usually needful to produce unconsciousness. Whenever the pain disappears the inhalation ought to cease."

According to Dr. Snow, a necessary precaution for watching the effects of ether and chloroform is, that they possess an accumulative property; their influence sometimes increasing for twenty seconds after the inhalation is discontinued. It is seldom necessary to carry the process farther than the production of sopor; in this dreamy state insensibility to pain is perfect, and in some persons much earlier. Many patients seem to be perfectly awake to all mental impressions, and even take an interest in the progress of the operation, without feeling the slightest pain, and, indeed, in some instances, experiencing agreeable sensations.

The influence of these agents being transmitted by the blood, pervades the whole system simultaneously, and particularly excites the capillary circulation as evinced by the injected conjunctiva, increased lachrymal and salivary secretions, and turgidity of the face and neck, the redness of which, however, soon gives place to pallor.

Although used heretofore only to produce general effects, it has lately been discovered by Mr. T. Nunneley, of Leeds, that local anæsthesia may be caused by these agents; and that the brain and other parts of the body not subjected to their influence remain unaffected. After an extensive series of experiments on different animals, he finds that, by immersion in a

small quantity of the fluid, or by applying the vapor locally for a limited period, a limb may be rendered perfectly motionless and senseless, and, what may be an additional advantage, fixed in any desired position. The benefits likely to be derived from this new and valuable discovery promise to be very great.

As regards the mode of applying these vapors, the principal thing to be observed is, that they be freely diluted with atmospheric air. Many instruments for inhalation have been invented, but most of them have given place to a simple sponge; and in the case of chloroform, a towel or handkerchief is perhaps as good as anything yet proposed. The degree of etherization does not depend so much upon the amount respired, as upon the peculiar constitution of the individual, and the physician is thus better able to regulate the amount, and judge of its effect. A dram of *chloroform*, or even half a dram, poured upon a handkerchief, and gradually brought close to the mouth and nose, will, in about two minutes, more or less, produce the required effect. Of *ether*, half an ounce may be poured upon a sponge, and more added from time to time if required. The full effect of ether is not generally obtained in less than four or five minutes. As regards their comparative merits, it may be said of chloroform that it is less pungent, and requiring a less amount is more easily inhaled; but it is also said to have a greater tendency to produce involuntary muscular contraction, and exerts a more direct and powerful action on the heart than ether. As far as present experience goes, ether has been found the milder and safer of the two; and in the case of children, from their greater susceptibility, should always be given in preference to chloroform; etherization, in them, occurring in about two minutes.

According to Dr. Snow, the immunity from pain does not correspond exactly with the degree of narcotism, but is greater as the patient is recovering from the effects of the vapor, than in the corresponding degree, as he is getting under its influence; this is more particularly the case with ether, which he considers to possess superior anæsthetic effects to chloroform in proportion to the narcotism produced. When ether is inhaled, the patient sometimes completely recovers his mental faculties, although insensibility to the operation still continues.

The use of ether or chloroform is contra-indicated by the existence of any disease of the heart, tendency to engorgement of the lungs, or aneurism of any of the great vessels; nor should it ever be used either during the existence of shock resulting from a severe injury.

The existence of extreme debility is not always a contra-indication; for, acting as a stimulant, the inhaled vapor seems to

possess a sustaining power, and has been successfully used in a state of great collapse, as well as for its sedative influence in low cases of typhus fever.

Perhaps one of the most important uses of ether and chloroform is that for the relief of stricture, and to render easy the introduction of the catheter; here in old and sensitive cases as well as in retention of urine and the passage of calculi, they are invaluable.

The physician in using these vapors should bear in mind that he is administering an agent of great power, of which he must carefully observe the effect; for the life of the patient is in his hands. In some constitutions six or seven inspirations of chloroform have produced complete insensibility, and we should always be on our guard lest alarming symptoms suddenly supervene. These are marked by suspended respiration; livid skin; widely dilated pupils; the eyes fixed, and the iris immovable. The patient should be immediately laid upon the floor, cold water dashed upon the face, and the vapor of ammonia applied to the nostrils. These will generally restore animation; if, however, respiration has entirely ceased, it will be necessary to bring it about by artificial means. The abstraction of a few ounces of blood from the arm, or from the jugular vein, will also assist the renewal of the heart's action, by relieving distension.

We should be careful, also, not to endeavor to make the patient swallow anything while in this state of insensibility, as cough might induce suffocation and hasten death.

Besides sulphuric ether and chloroform, various other preparations have been found to possess anæsthetic properties; as Aldehyde, Benzoin, Acetic Ether, Bisulphuret of Carbon, &c., but sufficient experiments have not yet been made to determine their relative value.

As the action of chloroform depends upon its comparative purity, this may be tested by dropping it into the following mixture, viz. Sulphuric acid at 66° and distilled water, equal parts. When cool, this mixture will have a density by the areometer of 40°. (Sp. gr. 1.38.) Pure chloroform dropped into this liquid will fall to the bottom.[1] S. G. Morton.

[1] French Journal of Pharmacy, 1848.

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